40 Rock Rd

POPULAR Computing WEEKLY

Only 50p.

24-30 April 1986 **Vol 5 No 17**

Amstrad's PC looks set for May launch



COLOUR FEATURE
Masterpieces from the Art Gallery on Compunet – p12

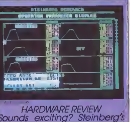
WORD WIZARDS
Don't miss the third part of our Wordsearch challenge see p26 for details

- **Amstrad could launch its PC compatible machine at the Amstrad Computer Show on 31 May**
- **Both PCDOS and CP/M compatibility to be included?**
- **Author of its operating system named**

Full details below and inside

AMSTRAD's PC compatible may now be scheduled for launch on 31 May at the next Amstrad Computer Show. The machine is likely to be in the £650-£700 range, will have a colour monitor, Digital Research's Gem graphics environment software on board and it is suggested both PC compatibility and CP/M file compatibility. It will also be sold in both floppy and hard disc versions (see *Popular Computing Weekly* March 20)

continued on page 4 ▶



HARDWARE REVIEW
Sounds exciting? Steinberg's Midi interface for the C64 see p10

AMSTRAD 464/664/6128, ATARI 64K, BBC 32K, CBM 64, MSX 64K, SPECTRUM 48/128K





Voted
"BEST ADVENTURE OF THE YEAR"
Commodore Computing International
Amstrad Computer User
Computer and Video Games

Voted
"BEST GRAPHICAL ADVENTURE 1985"
Zzap! 64
Amtix
Crash

£6.95
Cassette



Rise from Sorcerer's Apprentice to Supreme Wizard

Many Powerful Spells

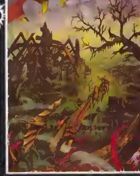
Independent Creatures

200+ locations, all illustrated
(not BBC)

Sophisticated word-recognition and fast response.

NEW

£9.95
Cassette



Send a large S.A.E. for FREE POSTER and mail order details to
Level 9 Computing P O Box 39, Weston Super Mare Avon BS24 9UR

Contents

SOFTWARE ▶

◀ HARDWARE

GAMES ▶

◀ PROGRAMMING

REGULARS ▶

Editor Christine Erskine **News editor** John Lettice **Features editor** Graham Taylor **Software editor** John Cook **Production editor** Lynne Constable **Supplements editor** Christopher Jenkins **Supplements designer** Barbora Hajek **Promotions manager** Simon Langston **Advertisement manager** Diane Holyoak **Advertisement executive** David Olsen **Classified executive** Jon Beales **Editorial secretary** Annmarie O Dwyer **Administration** Geraldine Smyth **Managing editor** Peter Worlock **Publishing director** Jenny Ireland

Published by Sunshine Publications Ltd 12-13 Little Newport Street, London WC2H 7PP Tel 01-437 4343 Telex 296275 **Typeset by** Publishers Reprographics Services Ltd 4 Roger Street, London WC1 **Printed by** Greenaway Harrison Sutton Road Southend-on-sea Essex. **Distributed by** S M Distribution London SW9 Tel 01-274 8611 Telex 261643

Popular Computing Weekly. Tel: 01-437 4343.

ABC

How to submit articles Articles which are submitted for publication should not be more than 2000 words long. The articles and any accompanying programs should be original. It is breaking the law of copyright to copy programs out of other magazines and submit them here – so please do not be tempted. We cannot guarantee to return your programs – so please do not send your only copy. **Accuracy** *Popular Computing Weekly* cannot accept any responsibility for any errors in programs we publish although we will always try our best to make sure programs work.

Amstrad restructures Sinclair repairs and returns service

AMSTRAD is starting to pick up where Sinclair's repairs and replacement service left off Norman Smith, managing director of Sinclair distributor Terry Blood Distribution, told *Popular Computing Weekly* that Sinclair's blue label 30 day replacement service broke down about two weeks before Sinclair did

This meant that TBD had been unable to exchange faulty machines Amstrad, however has now restarted the service in conjunction with TBD, and has taken advertising in the national press warning users to return faulty machines to their dealer not to Sinclair

Amstrad seems to intend to merge the 30 day replacement service and one year warranty on Sinclair products with its own facilities, but as Sinclair appears to have washed its hands of the whole matter, there may well be a few hiccups before the new service is fully up and running

Mirrorsoft features Biggles at UK CES

MICRO companies exhibited for the first time at Britain's Consumer Electronics trade show held from April 20-23 at Kensington Olympia

Biggles

While the number of software firms taking part was fairly small there were plenty of new offerings on view

Mirrorsoft had one of the most prominent stands and were previewing *Biggles* the game based on the forthcoming film, and a version of *Fleet Street Editor* for the CPC 6128 Jim Mackonochie of Mirrorsoft also said that its Amstrad PCW *Fleet Street Editor* will not now be released until this autumn

The company also displayed its new range of US-sourced 16-bit software and announced a forthcoming arts creation package for the Atari *ST Art*.

Mikro-Gen previewed a new shoot em up for the Amstrad CPCs called *Equinox* while Mastertronic launched its Entertainment USA range a series of £2 99 titles specifically written for Mastertronic by American programmers

Both Level 9 and Rainbird took stands with the former announcing that the latter would be publishing its *Colossal Trilogy*, a bumper version of the original *Colossal Caves* on the PCW ST and QL machines

Software on smart cards was being heavily promoted at Electric Software's stand while, on the peripherals side,

Cheetah s sound sampler

Cheetah displayed its Amstrad version of the Spectrum and a new sound sampler at £44 95 for the Spectrum 48/128 Also on the Spectrum, Cheetah has developed a Midi interface at £49 95 with a 128 to Midi lead at £9 75

Mikro-Gen joins the budgeteers

MIKRO-GEN is set to launch a £2 99 range of budget games, following on the lead set by US Gold (see *Popular Computing Weekly* April 10) The complete range has yet to be finalised, but according to Mikro-Gen s managing director Mike Meek it will lean heavily on the company s hits of years gone by

One of the first releases for example will be a double tape of *Centipede* and *Galaxions* the idea being, according to Meek, that there s a certain place in the market that will just pay £3-4" The range will also include new titles, but won t initially include current products like *Three Weeks in Paradise* Once these have dropped out of the charts they re liable to reappear as either single or double £2 99 games

Apple announces new Mac – but no price cuts

APPLE has announced a new version of the Mac with operating system enhancements and the new 900K drive

The new model is to be called the Macintosh 512/800 and fits into the range midway between the existing 512K Mac and the Macintosh Plus which was launched at January s *Which Computer?* Show

The new disc drive, introduced on the Plus is a double-sided model and the operating system has been increased to 128K and put into Rom which makes for faster disc access and graphics handling UK buyers will get a bonus in the form of the new keyboard incorporating numeric keypad US customers will have to settle for the older version

Price for the new model is £1 895 and it will be introduced on May 1 The existing Mac 512 will be dropped but an upgrade kit will be launched to allow Mac owners to upgrade in stages through the 512/800 up to the Plus

This announcement puts paid to any hopes that Apple would eventually bring down prices to compete with the Atari ST It is now clear that Apple will maintain pricing and offer extra features instead

Amstrad's PC looks set for May launch

◀ continued from page 1

Paul Bailey of Digital Research wouldn t confirm or deny that Gem would be included on the machine "I can t comment on any future plans of Amstrad" he said "There's a lot of rumour about a 16-bit machine from Amstrad, and it s probably well-founded But I think the market could be wrong on a number of counts"

Although it s thought the Amstrad PC will conform to the IBM standard by having $5\frac{1}{4}$ inch drives the bulk of the current wave of CP/M products is on Amstrad 3 inch format discs So if the machine combines the ability to read CP/M data files with $5\frac{1}{4}$ inch drives, it would also need to be able to cope with an external 3 inch drive

Amstrad specialist Timatic Systems is widely thought to have written the PC's operating system and Timatic was showing a $5\frac{1}{4}$ inch external drive for Amstrad s CP/M machines at the Amstrad show earlier this year Nick Young of Timatic favours the $5\frac{1}{4}$ inch drive on the grounds of its greater capacity

Timatic's $5\frac{1}{4}$ inch drive does however allow Amstrad s CP/M machines to read PC-DOS data files, so the company's experience here means it is well placed to do the job in reverse for the Amstrad PC Young himself conceded that more details would be forthcoming at the Amstrad show

Amstrad itself seems to have been in two minds about the machine s launch date, recently having cancelled a large stand booking at the June PC User show This has prompted speculation that the machine isn t ready or that Amstrad doesn t want to harm sales of the PCW8512 machines, but one dealer who had been ordering these heavily claimed to have been told there was "something much better" due in the next two months

This would place it nicely for the Amstrad show, and would conform to Amstrad s policy of not alienating its dealers The company makes a point of not pre-announcing launches but immediately prior to the launch will suggest to dealers that they shouldn t invest too heavily in existing stock.

CRL rings bells with the Commodore

CRL is to launch an Amstrad version of *Blade Runner* and a 64 version of the acclaimed *Tau Ceti*, while its sister label Nu Wave is to launch *Tubular Bells* for the 64

In *Blade Runner* you play a bounty hunter employed to seek and destroy the replidroids androids bent on destroying the human race It will be available from April at £8 95 *Tau Ceti* will be released in May at £9 95

Tubular Bells is a combined soundtrack and light synthesiser the soundtrack being a complete version of the LP by Mike Oldfield The light synthesiser generates its own 'mesmerising to watch' patterns, or can be controlled through the keyboard A snip at £7 95

Details from CRL, 01-402 9134

Citizen's £50 printer

A BARGAIN printer is being released by the Spectrum Group, imported from Japanese company Citizen

The Citizen printer will cost just £49 99 A two colour dot matrix printer It uses standard size paper rolls and is compatible with most Commodore computers the Vic 20 C16 C64 Plus/4 and C128s

Details from Spectrum on 0462 37171

Linkword goes Dutch

LINKWORD has added Greek Dutch Russian and Portuguese to its BBC B first level foreign language courses

The courses are designed for travel or schoolwork and are intended to teach grammar and a 350 400 word vocabulary in eight to 12 hours

Second level courses in French German, Spanish and Italian are also now available Each course comes on disc and costs £24 95

Details from Access Software 100 Baker Street London W1 (01-935 1470)

Firebird freebie hits hitch at Hi-tech

POPULAR Computing Weekly's special tape offer organised in conjunction with Firebird, has unfortunately been affected by the liquidation of Hi-tech Distribution

Much of Firebird's stock was being held by Hi-tech and is now in the hands of the liquidator

Those who recently sent in for Firebird tapes will be receiving the *Arcade Champions Handbook* in compensation

SHORT'S FUSE

FIREBIRD

Amiga graphics packs to be launched in May

PRECISION Software is to import *Animator Images* and *Aegis Draw* – three animation and graphics packages for the Amiga from Aegis Development in California

Animator is an animation package for graphics professionals and hobbyists and will initially be sold bundled with a low resolution version of the *Images* paint package for £119 95 A high resolution of *Images* will later be sold separately for £69 95

Aegis Draw is a full CAD package that includes automatic scaling, grids and a parts library It will cost £169 95 and should be available from May Details from Precision Software on 01-330 7166

Letters

Tight fit

I refer to your issue dated March 27 in which Andrew Nightingale wrote that he was having trouble loading programs with his C2N, which is over 12 month old

I too had similar problems, but I have managed to cure them by carefully bending the metal spring clip where the top of the cassette fits into the C2N. This makes the cassette fit more tightly into the unit and therefore enables the very critical impulses to be picked up correctly. I assume that this clip tends to weaken with use so that the cassette is not so tight fitting against the tape heads

I hope this solves the problem

Paul B Nash
Cheadle Hulme
Cheshire

Unusuable QL?

Now that Amstrad has taken Sinclair's range of computers under its corporate wing and is intending dropping the QL, I would like to know (as I'm sure do many thousands of QL and Spectrum owners) if the company intends to carry on manufacturing microdrive cartridges. I know they are non-standard and quirky (although they've never caused me any problems) but if they were to disappear all QL owners will fine themselves with no mass storage media – unless, of course, we all fork out a couple of hundred pounds for a disc drive

This surely would be an unprecedented situation for any discontinued home micro. The QL would not only be rendered obsolete but unusable once all the users' existing cartridges were used up

Rob Baxter
Whalley Range
Manchester

Computer music

As a local organiser for the arthritis and rheumatism council for research, I am appealing through the magasine for assistance from computer users with an interest in music

The A R C is celebrating its 50th anniversary and depends extensively on public support for funds which are directed towards medical research within this field

My current project is to make an audio tape of computer generated music, while I program extensively myself within this field 'many hands make light work' and co-operation means success. This tape would be sold as widely as possible. With all proceeds going to the A R C funds

All types of music are acceptable – classical jazz, folk electronic, etc. While I can offer no prizes your contribution would be duly acknowledged on the cassette by name

Programs should be sent to the address below, should they be in Commodore 64 mode, a tape or disc will be acceptable (returnable on request). Other computers would require an audio tape. Please specify program albe used where applicable

Great or small – contributions will be acknowledged

Dr E Mills
43 Chancel Close
Nailsea
Bristol BS19 2NE

Faster chips

I find it very annoying the way this magasine persists in printing inaccuate information especially regarding the Sinclair QL (and Atari ST range)

The 68000 range of processors are not 16-bit. The amount of data pins on the chips is, on the whole, irrelevant. The hardware inside the processor takes care of the access of words and long words if the data bus is too small. The Z8000 has only an 8-bit data bus but this is far from an 8-bit processor. Admittedly the width of the data bus does make the 68008 slower than the 68000 and the 68000 slower than the 68020 but this is only by a few per cent. Internally all three processors are 32 bit

The reason added memory makes the QL faster has nothing whatsoever to do with the screen update. The 68008 in the QL runs at 7.5 MHz but the 64K memory chips inside are not capable of running this fast, so the 68008 is slowed down when accessing this internal memory to allow for these slower chips. Most memory expansion units use new faster chips which are capable of the high speeds necessary, thus now slowing the CPU

The screen update does slow the memory access up, but does this to the external memory as well, as there is only one data bus. The video ULA grabs the data bus and stops all memory access by the CPU

K A Unsworth
Grays
Essex

Big-ridden

As a rueful owner of an Atari 520ST I have to conclude that the glowing reviews of the machine must be written by programmers, certainly they cannot have tried to write any serious applications in Basic!

The interpreter has a whole host of novel effects available. The *Gotoxy* command positions the cursor, but not where it should, and whilst the error can be overcome by flipping the window, large areas of display then disappear. Assignments, such as *A=B* following an *If ... Then ... Else* statement, often corrupt the interpreter which then regards the variable name as a reserved word rejecting later occurrences of the name. *For ... Next* loops are randomly rejected unless wholly contained within a single line, and *List*, *Save*, *Edit* etc often cause the machine to crash

There are other bugs also but perhaps the worst affect file handling. These routines are so shot through with faults that they are unusable. *Eof*, *Loc* and

THIS WEEK'S PUZZLE

Puzzle No 205

When Luigi won a prize of one million lire on the national lottery he opened a bank account for the money. The account paid an annual interest of eight per cent, paid daily. This meant that every day 8/36500ths of the amount in the account were added to the sum, the bank rounding the sum to the nearest lire

Exactly seven days after investing the money Luigi made a cash withdrawal and thereafter at weekly visits Luigi noticed that the amount remaining in the account was just ten lire more than half of the amount originally invested.

Can you say how much money he withdrew on each of his weekly visits?

Solution to Puzzle 206

The three possible values for P C W are 105, 173 and 340 giving cubes of (respectively) 1191016, 5177717 and 39304000

Commencing with initial values in the range 102 to 987 the values are converted to a string. Lines 90 to 150 check each character of this string in turn to determine if it matches one of the three originating digits. Each time that this happens the tally variable (T) is incremented by one

```
10 FOR N=102 TO 987
20 N$=STR$(N)
30 N1=VAL(MID$(N$,1,1))
40 N2=VAL(MID$(N$,2,1))
50 N3=VAL(MID$(N$,3,1))
60 IF N1=N2 OR N1=N3 OR N2=N3
   THEN 170
70 C=N*N*N
80 C$=STR$(C)
90 T=0
100 FOR P=1 TO LEN(C$)
110 Z=VAL(MID$(C$,P,1))
120 IF Z=N1 THEN T=T+1
130 IF Z=N2 THEN T=T+1
140 IF Z=N3 THEN T=T+1
150 NEXT P
160 IF T=LEN(C$)-1
   THEN PRINT N,C$
170 NEXT N
```

In the examples given matching digits occur in all but one place in the cube and so the value of the tally would be equal to the number of characters in the cube minus one. This is determined in Line 160 and any such lines are printed out. These prove to match the examples given in the question

Winner of Puzzle No 304

The winner is Phil Amey of Esher, Surrey who will be receiving £10

Rules

The closing date for Puzzle 205 is May 20

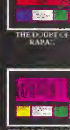
Heavy on the Magick



CONVERSATIONS WITH APEX



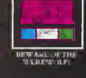
SCREEN SHOTS FROM THE SPECTRUM VERSION



THE DOUBT OF RAPAZ

OLD TROLL!

BEFORE THE GATES OF WOLFDORP



BEWARE OF THE WEREWOLF!



MAGOT THE PRINCE





GARGOYLE GAMES LTD., 74 KING STREET, DUDLEY, WEST MIDLANDS DY2 8QB
Telephone: (Sales) 0384 239777 (General) 0384 237222

Lof simply do not work at all When strings are stored in a sequential file the interpreter often has the notion of moving all the records up one place filling the vacant record one with a null string

At least it is refreshing to find that Atari does not pretend that the faults are not there or blames user error – it does admit that its Basic is bug-ridden and that it has no fixes in sight to make the ST work properly

Anyone want to buy a second-hand machine that is guaranteed to entertain for weeks displays lovely bouncing balls but cannot access disc files?

David Loverseed
Stockport

Simple sums

The Atari 520ST may well have 512K memory and a Basic which occupies over 130K, but it cannot appear to do simple sums Run the first program below then the second Now run it again And again You may sometimes get the right answer, 36 but more often the machine comes up with six or four I do hope no-one is running their payroll on it

```
10 OPEN 0 1 'SIMPLE SUM
20 PRINT #1 17 PRINT #1 3
CLOSE
```

```
10 OPEN I 1 SIMPLE SUM
20 LINE INPUT #1 A$ LINE INPUT #1
B$ CLOSE
30 A – VAL (A$) B – VAL (B$)
40 PRINT A*B
```

D Hewson
Beeston
Nottingham

Calculated

I have a 48K Spectrum and I am trying to build up a collection of short drawing programs

However I am not too hot on calculations using the *Cos Sin, Pi* functions etc I would be grateful if any of your readers that have some of these would send them to me

I do not mind if they are in Basic 1 6 or M/C

Mr K Norton
8 Devonshire Close
Staveley Chesterfield
S43 3PB

Wrong answer

Re Peek and Poke April 10 I would draw your attention to the letter printed under the heading 'Reserved space' from Lawrence Scotford 'Is it possible to disable to Interface One on a Spectrum without disconnecting – and so load incompatible software?'

Your answer was no, *but it is!* On power-up and until any extended Basic commands are issued Interface One uses no computer memory at all If the Interface One Rom has been called then it is perfectly possible to do a soft reset of the Spectrum by a simple *Randomise Usr O* command Any software not compatible with Interface One will then load normally On a Spectrum Plus you press the reset button for the same effect

R J Elliott
Rugby

Readers' Chart No 71

1	(1)	Elite *(Spectrum/C64/Amstrad/BBC)*	**Acornsoft/Firebird**
2	(2)	Und-um *(C64)*	**Hewson**
3	(4)	Lord of the Rings *(Spectrum/C64/Amstrad)*	**Melbourne House**
4	(3)	Commando *(Spectrum/C64/C16)*	**Elite**
5	(7)	Movie *(Spectrum)*	**Imagine**
6	(–)	Bomb Jack *(Spectrum/Amstrad)*	**Elite**
7	(–)	Spellbound *(Spectrum/Amstrad)*	**Mastertronic**
8	(5)	Swords and Sorcery *(Spectrum/Amstrad)*	**PSS**
9	(8)	Gunfright *(Spectrum/Amstrad)*	**Ultimate**
10	(–)	Way of the Tiger *(Spectrum/Amstrad)*	**Gremlin**

Winning Phrase No 71 "Emotive lurid emu", from Chas Holt, of Birkenhead, who wins £25

Next week's Readers Chart will be the last one

Write Hand Man



Write Hand Man is a marvellous if somewhat dubiously titled, utility imported from the US by Hisoft It has been modelled on a famous program on the IBM PC called *Sidekick*, to see it on CP/M is an eye-opener

The idea is that the program is loaded into the part of memory that holds CP/M itself taking between 3 and 5K in the process depending on which option you choose When running CP/M programs you will never see that this memory is missing (eg *Newword*) but with others the loss may be more critical This is particularly true when using CP/M 2.2 where the programs may have had to be squeezed in

Write Hand Man sits there completely invisible until a special key combination is pressed The program you are running is frozen (without harm) and a pop-up menu appears giving you several options

The options are to look at or enter, notes in a notepad file study your diary for the next two weeks, look up a phone numbers file get a disc directory, use a calculator or view a text file on disc (potentially very useful when using a word processor) *Wordstar*-style editing keys are used for entering data

There is also a communications program supplied that needs to be installed for your particular hardware Your own purpose written programs can also be called up if they fit within 1 5K

When finished you are then restored back to your main program exactly where you were before you started

The drawback is that you need to have the appropriate program files and data files on a disc at hand at all times or the whole thing becomes pointless This is really not a great hardship, as unless you have lots of data very little room is lost on a disc You also have to be committed to keeping things like the diary up to date

On the whole it is perfect for those who spend a lot of time at the keyboard and who often have two things to do at once It also suits those who like me write everything down on scraps of paper and then lose them It makes a perfect complement to CP/M programs such as *Newword*

Tony Kendle

Program *Write Hand Man* **Micro** Any Amstrad CP/M **Price** £25 **Supplier** Hisoft, 180 High Street North, Dunstable Beds LU6 1AT

Workbench

It would appear that Talent is on to yet another winner with their latest release, *The Assembler Workbench* Virtually every conceivable facility is combined in a single machine code development package enabling a programmer to assemble about 35K of source code on an unexpanded QL directly from memory larger programs may be accommodated with microdrive, floppy or memory expansion access

Compact and elegantly designed, the *Workbench* includes a full screen editor, assembler, monitor and disassembler Access to the complete operating manual may be made on-screen utilising the detailed index, while the program is running

Decidedly user-friendly the assembler can operate in the conventional two-pass mode or as a one line assembler The latter facility allows direct modification of machine code using the standard 68000 processor mnemonics

Trace facilities allow a user to single-step through an entire program whereupon successive instructions are disassembled and printed Alternatively up to 20 trace points may be placed in Rom or Ram areas for use with parts of a program A command is included in the operating system whereby users may probe QDOS routines during a normal single-step trace

Dual screens are provided primarily for de-bugging graphics displays or they may be set up for a disassembler/hex dump combination When disassembly of a sub-routine is completed, the normal display may be restored and the original disassembly resumed

A facility is included for programming the five function keys for use with SHIFT and the relevant function key number

The screen editor which can be used independently of the monitor and assembler, can operate from Ram microdrive or disc files for modifying assembler or SuperBasic programs or on any text file

Only one minor point arose during this evaluation which I felt could be improved on the monitor line lengths are limited to 132 characters Whilst more than adequate for the majority of applications, some types of files (eg text games) could require a larger capacity

Talent's *Assembler Workbench* represents not only good value for money but is a well planned language utility The screen editor alone is worth the price of the package. *Workbench* is probably not suitable for the absolute beginner: those starting with machine code couldn't however do better than this

Ron Massey

Program *The Assembler Workbench* **Micro** Sinclair QL **Price** £24 95 **Supplier** Talent Computer Systems Curran Buildings, 101 St James Road Glasgow G4 0NS

Simple Accounts

Since when has doing the books been easy? Since the 14th February this year – that's when Cornix Software converted *Simple Accounts* for the Amstrad CPC range to the Amstrad PCW range

Setting up *Simple Accounts* for the first time does take quite a while after making your working disc (backup) you define a template Before you enter any data you must name the folio you wish to use a folio can refer to a day, a week a month or year Folio numbering is automatic, but one restriction is that only 200 entries can be made per folio

When making an entry you give the date a classification number which is the column to which the entry is to be made a reference (which can be anything you like) the amount of the transaction the VAT and the payment reference

When all entries for one folio have been made, they can be looked at and analysed in a variety of ways A straight forward list of purchases/sales can be made which may include either all entries or those within or outside the scope of VAT This list returns the entry number, the date the payment reference the reference, the entry total and the VAT for each item that complies with the requirements

You can search for entries that have the same payment reference, the same sub-reference or fall into the same column Analysing produces a summary of transactions for each column and gives the total amount with and without VAT VAT reports can be made which summarise the VAT input and output for any folio, and calculate the amount you owe to Customs & Excise

The program is totally menu driven, which makes using it easy for just about anyone Information, such as lists of entries can be printed to either the screen or the printer and are nicely formatted

David Wallin

Program *Simple Accounts* **Price** £34 95 **Micro** Amstrad PCW 8256 **Supplier** Cornix Software, 16 Knesworth Street, Royston, Herts SG8 5AA

Midi Interface

Over the last couple of years the Commodore 64 has been recognised as the best all-round value-for-money music computer with applications ranging from simple noise generation with its built-in Sid sound chip to very complex control of professional synthesisers when fitted with a Midi interface

In the past few months the capabilities of the 64 have been expanded to almost unbelievable levels with the announcement of new music packages from Germany and America One good example is the *Pro 16* from Steinberg, which as its name suggests is a 16-channel Midi composer

As I've indicated, you'll need a Midi interface to run the package, and Steinberg make two – one at around £135 and a simpler version (lacking sockets for tape synchronisation and so on) for nearer £35 The *Pro 16* software is around £90, and incidentally is available in an Apple version too with a 24-channel Atari 520ST version forthcoming

The cost of Midi synthesisers capable of taking advantage of the Steinberg software is plummeting, with the amazingly powerful Casio CZ-101 reportedly in the shops for £249 cash The 101 is unusual in being able to play four notes with four different sounds simultaneously, as well as being able to play four or eight-note chords with a single sound

But the *Pro 16* software can be used with any Midi instrument (this includes drum machines, other sequencers Midi home keyboards, effects units and so on)

The *Pro 16* package will allow you to record and arrange musical pieces entered from the synthesiser keyboard, either in Step Time (every note you enter plays back with a set length regardless of how slowly you have to do it!) or Real Time (playback is exactly as you entered the notes) All major functions are shown on just one screen

The larger Midi Interface is a flat grey plastic box with Din connectors on the rear for Midi *In* and *Out* and jack sockets on the front for synchronisation to a non-Midi drum machine, to tape and for connection to a programmable footswitch Red and Green Led s indicate when Midi information is coming into or leaving the interface so if your initial connections aren't right you'll have a good idea of where to start.

The software allows 16 polyphonic tracks of music to be recorded – the Real Time option includes a metronome bleep – and the maximum length of one section is 64 bars of any time signature Normally you'd assign each channel to transmit on the Midi channel of the same number, so that Channel 1 would control a synth set to Midi channel 1, Channel 16 would control a synth (or expander or drum machine or digital delay) set to Channel 16 and so on

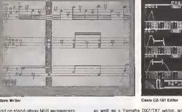
A song 256 patterns long can be defined and this can of course be stored to disc Unusually many parameters such as tempo and Midi channel can be changed while the music is playing A series of moving vertical bars indicate that there's some activity on each channel, and other readouts show bar and beat number, memory remaining and so on Total capacity is 8000 notes and most of the functions are controlled simply from the Cursor, Function and Shift keys

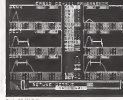
The software will record and play back almost any information which can be transmitted by Midi so that includes notes, patch (sound) changes, pitch bend modulation (vibrato), keyboard velocity (affects the loudness of the note on many synths) and so on

The computer can hold 64 patterns at a time and you can prepare patterns in three ways – Real Time, Step Time (entering single notes or chords from the synthesiser and spaces with the space bar) or quantised real time This means you can auto-correct your playing so that a misplaced note will be moved to the nearest quarter eighth, 16th or even 96th beat Very handy for those whose enthusiasm for the keyboard exceeds their skill on it.

The whole package is laid out in imitation of an unusually flexible 16-track tape recorder; each channel number active at any given time is blocked in green, and inactive channels are white Underneath each channel is its Midi transmission channel number which can be altered after a piece is recorded – a facility you won't

Pro-16


Score Writer


Casio CZ-101 Editor

find on stand-alone Midi sequencers

A simple second page allows you to time-shift tracks to compensate for any sync problems and you can use this page to create long delays or short chorus-like effects using two synths playing the same sound And there are some very friendly functions on the main page too – if you simply press the A key on the computer every single connected synth sounds an A for tuning up!

The same Steinberg interface will as we mentioned run a Midi Casio CZ-101 editor as well as a Yamaha DX7/TX7 editor, an Ensoniq Mirage editor and a comprehensive Score Writer for transcribing existing *Pro 16* sequence files all at extra cost and purchased separately So you could compose a piece on the *Pro 16* record it direct from the synthesisers, and prepare a professional quality transcription in standard musical notation at the same time

Now that the cost of the C64 has dropped the investment needed on Midi synthesisers is less significant. Luckily they have come down in price too and will continue to do so over the next couple of years. If you do go for the *Pro 16* you really are getting a professional music system, but one which is incredibly easy to approach and operate

Mark Jenkins

Hardware *Steinberg Midi Interfaces £135 and £35 respectively Real Time/Step Time Software £90* **Micro** Commodore 64 **Supplier** (via) Oxford Synthesiser Company, Flat 5 Gladstone Court Gladstone Rd Headington Oxford Tel 08675 5277

It's not all jungles and chit-chat

Christina Erskine looks at artist Hugh Riley's (left) work on Compunet – a selection of which is shown here

One of the most successful features on the Commodore-specific database Compunet is its Art Gallery section. Here, budding artists can upload pictures screens – still or animated – simply as a display for other subscribers to flip through and view. A new section called Live Action has also been set up to cater specifically for animated demonstrations which can include music.

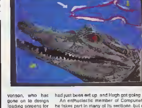
Compunet editor Jane Firbank has run several competitions within the Gallery, which has stimulated interest both from participants and those who just want to see the pictures. The best artists frequently come out top of Compunet celebrity votes compiled by subscribers.

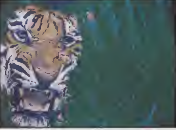
At any one time, there are usually 40-50 artists displaying one or more works of art on these pages.

Among the Gallery's most proficient and prolific artists are Bob Stevenson, who has gone on to design loading screens for Firebird's *Thrust* and its forthcoming game *Empire*, Stu Jackson, who has written the loading screen for Virgin's yet-to-be-released *Dan Dare*, and Hugh Riley.



Examples of Hugh Riley's work which can be seen on Compunet's Art Gallery section





Hugh, an unemployed art college graduate, was introduced to Compunet when he won the Commodore International Art Challenge in 1984. A modem was part of his £5000 endowment prize. Compunet had just been set up, and Hugh got going.

An enthusiastic member of Compunet, he takes part in many of its sections, but it is his art in the Gallery that most subscribers want to see.

'Compunet always fully encouraged me right from the beginning,' says Hugh. 'It paid for my first screens, for a start, putting them in its free Hall of Fame pages, which encouraged me to create more pictures for it. I started with low-res pictures just using the Commodore keyboard, but for the more recent hi-res examples I use the Audiogenic Koala pad.

'More recently still, I've been doing animated pictures for the Gallery – I did a lot of animation work at Art College.'

His animated pieces attracted the attention of Commodore UK in Corby, which provided Hugh with the software to create a series of animation sequences on the Amiga, which will be strongly featured at the Amiga's UK launch at the Commodore Computer show next month.

One of Hugh's personal favourites is the Alligator, a hi-res example pictured here. The tiger is a picture created on the Amiga, showing off the effects created by the choice of colours on the machine.

To see Hugh Riley's work on Compunet, the Art Gallery can be accessed by Compunet subscribers on page 800. Anyone wishing to join Compunet should contact the database at 7-11 Minerva Road, London NW10 6HJ.

DS Enterprises 01-671 0209

Disks

5.25"	DS DD
Diskxpress (Recommended)	£12 50
3 5"	DS DD
Fuji	£28 50
Maxell	£29 50

All disks are guaranteed and come packed in plastic flip and file type boxes.

Drives

QL, Spectrum or BBC Compatible

	Single 80 Track	Dual 80 Track
3 5"	£110.00	£199 95

QL Software

Lattice C	£85 00
Pascal (Full ISO)	£79 00
Super Charger (Basic Compiler)	£48 50
Ram Disc (Ram Disk & Utilities)	£14 95
Tasprint	£17 50
QLpaint	£21 95
Toolkit II (Eprom version)	£32 95
Ice & Choice	£34 95
Sign Designer (Designs Screens & Signs)	£16 95
Touch Typist	£11 50

Add Ons

512k Expanderam (Miracle Systems)	£120 00
Including Rom Disk	£127 50
Dual 3 5" Drive & Interface	£265 00
Citizen 120D Printer	£225 00
Centronics GLP	£159 95
Saga 3 Keyboard	£64 95

DS ENTERPRISES, 25 Trinity Rise, London SW2 2QP

All prices include VAT and Post & Packing

3" 50,000 IN STOCK on the 4th May

ONLY £37.50 per 10 + VAT
SEND MONEY WITH ORDER FOR EXPRESS DELIVERY

3½" S.S. £22.25 per 10 + VAT
5¼" SONY DYSAN & FUJI DYSAN D.S. QD £24.90 per 10 + VAT
DISKETTES AT UNBEATABLE PRICES
Also FUJI D.S.H.D. £26.50 per 10 plus VAT

Please make cheques payable to Cash Terminal Supplies and send to Cash Terminal Supplies, 11 North Street, Cavell Court, Peterborough PE1 2RA. Tel No 0733 314 525. (Cash by registered post only please).

TRADE ENQUIRIES WELCOME

The event every Commodore user is waiting for . . .

Organised by Database Exhibitions

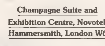
The 7th official commodore computer show

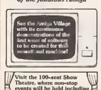
– featuring the UK launch of the fabulous Amiga

Friday 9 May 10am-6pm

Saturday 10 May 10am-6pm

Sunday 11 May 10am-4pm





Advance ticket order

Please supply

- [ ] Adult tickets at £2 (save £1) £ ______
- [ ] Under 16s tickets at £1 (save £1) £ ______

Total £ ______

- [ ] Cheque enclosed made payable to Database Publications Ltd.
- [ ] Please debit my credit card account

Access / Visa

Admission at door £3 (adults), £2 (under 16s)

The 7th official commodore computer show

Post to: Commodore Show Tickets Europa House 68 Chester Road, Hazel Grove, Stockport SK7 5NY

Name

Address

Signed

PHONE ORDERS: Ring Show Hotline 061-456 8835
Please quote credit card number and full address + Ref. Pop1

Sport of Kings

Home racing games don't have a happy history I remember one including anomalies like four mile flat races while another was totally unplayable – which was probably in its favour It's a surprise to find this in the 'up-market' MAD range – Mastertronic's way of saying that this game is a little bit better than the norm Usually true – witness *The Last V8*

This makes no bones about it – betting is the sport of kings Up to five people gamble imaginary money on imaginary horses which may or may not get your adrenalin going

It's all controlled by the obligatory icons which don't work as smoothly as some I've seen Maybe icons aren't such a good idea after all Difficulty levels are based on an optional number of variables real masochists going for jockeys, weights and ground as well as horses and distances To play the game properly you need a mathematical mind capable of juggling 20 different ideas at once – not fast reactions

Win each way and forecast bets are allowed and some care has been taken to try to simulate the imponderables of following form

The program uses the Currah speech unit if you want to hear the commentary as read by a superior grade of Dalek and there's a printer option which I'd say is almost obligatory if you want to keep proper track of the form book otherwise you'll spend all of your time scribbling notes and rechecking tables

So they're off – with reasonable race graphics – and this is a winner but in a very small field

Reasonable means the grass looks green and the horses have at least four legs It rates as moderately visually exciting but no more

If you're a gambling addict it may help you through Sundays and rained off cards but otherwise its main value is as an object lesson in how nobody beats the system

John Minson

Program *Sport of Kings* **Micro** Spectrum 48K **Price** £2 99 **Supplier** Mastertronic Ltd 8-10 Paul St, London EC2A 4JU

War Play

There's been many a good idea spoiled by poor execution and Anco's *War Play* is a perfect example

The idea was to take the key elements from the war game scenario, dress them up with detailed 3D graphics and turn the whole into a combined strategy/arcade game

You can play against the computer, or against a friend each side controlling a military force comprising fighter and bomber planes and tanks

The action takes place against a scrolling 3D background of airfields, armed compounds and wooded areas.

There are random elements too, such as the anti-aircraft missiles that whip across the screen

So far so good But in one-player mode, it plays about as well as a pianist with boxing gloves on The aircraft are difficult to control and the lack of shadows makes it impossible to gauge height – crucial for bombing runs

I had a bit more success with the tank but that too kept bashing blindly into walls and jamming against trees To be fair, *War Play* was designed as a two-player game and it's far better in this mode where the competitive aspects make up for some of the problems Far from earth-shattering though

As a budget-range game say about £2 99 it would be acceptable, but at full price it can't be recommended

Peter Worlock

Program *War Play* **Micro** Commodore 64 **Price** £7 95 (£10 95 on disc) **Supplier** Anco Software Unit 10 Victoria Industrial Park, Victoria Road Dartford Kent

Jock

By the year 2112 AD android design will have reached such heights that they'll look like animated dustbins – but at least they'll also have cute names like Jock.

Unluckily, they'll also be able to get lost in time, which is what has happened to our garbage can man

His only hope of a happy homecoming is to locate the 32 time rings in each of three time zones

If you've not guessed by now, Jock is a maze game with a race against time, as too much exposure to the rings' radiation leads to loss of life However there's an extra life for each five rings collected

The most interesting feature of the game is its scale – it's big This means that to plan the best route you have to check the neighbouring screens – the initial approach isn't always the best when it comes to dodging the obligatory bouncing nasties

It all calls for some little planning and a bit of experimentation

Nothing original then and nothing particularly striking, even at the budget price – but it should hold your attention for a few hours on a rainy spring Sunday

John Minson

Program *Jock & the Time Rings* **Micro** Spectrum 48K **Price** £1 99 **Supplier** Atlantis Software Limited 19 Prebend Street, London N1 8PF

Wing Commander

With Biggles taking to the air soon, and Microprose bringing out more and more sophisticated flight simulators such as *Acrojet*, it seems that the popularity of air battle games is endless

Mastertronic has released *Wing Commander*, formerly a full-price Creative Sparks title at just the right time by the looks of it Neither too complex nor too undemanding it maintains the excitement of air combat without sacrificing all the demands of realism

The screen presents the familiar through-the-canopy view of the horizon and controls and indicators are stylised but easy to understand Damage attitude compass fuel ammo power speed and altitude are among the most important

Your task is to intercept enemy bombers displayed on a map screen showing your land base before they destroy their targets You must then return to base and slow down enough to safely land (although I admit that I haven't yet made it this far)

The combat and refuelling sequences are exciting and the graphics and sound generally very good

An excellent purchase at £1 99 though not complex enough for simulation freaks or action-packed enough for pure arcade fans

Chris Jenkins

Program *Wing Commander* **Type** Arcade/simulation **Machine** CBM 64 **Price** £1 99 **Supplier** Mastertronic 8-10 Paul Street London EC2

Golf Construction

We've had football, tennis, baseball and American football – not to mention bizarre offerings like canoeing. There have also been a few attempts at golf but none to match this release from Ariolasoft.

The Golf Construction Set is one of the most intelligent sports simulations yet to appear and remains an extremely enjoyable game.

The list of features is vast: four actual courses including Royal St Georges and Wentworth, a full set of clubs – five woods, nine irons, putter, sand wedge and pitching wedge, each rated for difficulty and distance, variable weather and course conditions, and realistic handicapping.

You start the game by selecting a course and either pre-set or defineable weather. Conditions like wind, air temperature and how hard the ground is have an effect on the length of your shot. Club selection, direction and power in the swing are joystick controlled. Advanced players can also attempt to deliberately hook or slice their shots.

The graphic displays are excellent. You get a plan view of the hole showing the fairway, rough, bunkers and water hazards, together with pin-placement on the greens. Graphics alongside the display indicate slopes across and along the hole, as well as wind-strength and direction.

A 3D display gives you a realistic view of your ball as it vanishes into the woods, lakes or sand traps, or simply drops out of bounds (I said it was realistic).

When you master the four pre-set courses, you can begin designing your own – modelling them on existing courses or dreaming up nightmares from your imagination.

If you and your 64 have already won every Olympic gold medal going, taken Fulham to the FA Cup Final, re-gained the Ashes, and paddled a kayak over Niagara Falls, *The Golf Construction Set* holds endless new challenges. Whether you're a golfer or not it's highly recommended.

Peter Worlock

Program *The Golf Construction Set* **Micro** Commodore 64 **Price** disc £14.95 twin cassette £12.95 **Supplier** Ariolasoft, 68 Long Acre, Covent Garden, London WC2E 9JH

Sodov the Sorceror

A sorceror's life is infuriating – so much so that the hero of this game is reduced to shouting his name at the dinosaurs which charge his castle gates. Meanwhile his YOPs course apprentice stirs away at the pot in the courtyard, a tender morsel for a hungry monster.

At the start Sodov patrols the castle battlements blasting away with cross-hair magical targetting. His alchemical arsenal turns the tyranosauri into gold.

His shots are strictly limited unless he ascends a tower and shouts to his lucky star.

However, while a cloud covers the heavenly sparkler there's no recharging, and worse – bolts of lightning sap his strength as does an unfriendly red spider.

Eventually a reptile will reach the gate and crank it up, at which point Sodov has to race down the tower and if he fails to zap the kidnapper before it snatches the apprentice snack, it's out to the second screen. Here Sodov lays mines with the cross hairs in an attempt to rescue his assistant. While waiting for the dinosaur to destroy itself he can run round collecting the gold. Then he drags his YOP into the castle, because if he loses all three youths he's a goner – as he is if the dinosaurs reach him or blast him too often with their breath.

It's a lively scenario with attractive graphics, but the game lacks playability and though it's an entertainingly varied and original shoot 'em up it soon becomes infuriating, so you too may find yourself shouting 'Sodov!'

John Minson

Program *Sodov the Sorceror* **Micro** Spectrum 48K **Price** £2.95 **Supplier** Bug-Byte, Liberty House, 222 Regent Street, London W1R 7DB

Twister

Who knows what evil lurks in human hearts? Twister, 'the blackest hearted dweller in Hades', according to System 3, which has produced a nice family game – the family being the mother and daughter team of Twister and Charlotte. Only one who is pure of heart and mind can do battle against this evil – or failing that, a computer games player!

Despite the packaging blurb which is a fine brew of satanic mumbo-jumbo warped enough to have any fundamentalist foaming at the mouth, *Twister* turns out to be nothing more than a shoot 'em up – proof if needed, that the battle against evil is just glorified Space Invaders. Ahh, but what a shoot 'em up. This is just the thing for anybody who has become shell shocked with overly sophisticated games.

The first section is reasonably simple as you leap across what look like floating typewriter keys collecting mystical symbols and blasting the hordes of darkness. The next stage is more difficult though as you warp from one side of a grid to the other, still blasting and colleting. So you move from dimension to dimension until you face the wrath of Twister herself.

This is enlivened by some gloriously grotesque graphics for the minions and a well balanced game play making *Twister* a good, fairly mindless diversion.

John Minson

Program *Twister* **Micro** Spectrum 48K **Price** £7.50 **Supplier** System 3, Davis House, 29 Hatton Garden, London EC1N 8DA

Starstrike II

Long time ago Realtime – was once a master of vector 3D games and of those *Starstrike* was the finest, reducing even a cynical reviewer to cries of 'Whooargh!' and an unholy bloodlust as I blasted the aliens.

Suddenly it's back with a sequel, only now the enemy craft and battle-stations are shaded and solid looking.

First up is the almost obligatory pseudo-*Elite* screen adding a degree of tactics to the wholesale slaughter you're about to unleash. You need to choose the star system and planet therein for your first bout of outsider annihilation carefully as some are less well defended than others. After this you'll find yourself flying towards an enemy space wheel with its defence pods to blast before docking. It's up to you to co-ordinate with the rotation so that you can dock. Déjà vu, any of you *Elite* out there?

Next comes the iris valve hanger exit which is constantly opening and closing. Next it's into space again to take on the orbital fighters. This is a question of using your radar carefully and calls for extremely sharp reactions.

The ground attack provides some planet flying and blasting and leads to a ventilation duct sequence before you immobilise the planet and move on to the next one.

Good solid stuff with graphics that are acceptably smooth but somehow it failed to thrill me quite as much as its predecessor.

Still, I can think of far worse ways to spend my time.

John Minson

Program *Starstrike II* **Micro** Spectrum 48K **Price** £7.95 **Supplier** Realtime Software, Prospect House, 32 Sovereign Street, Leeds LS1 4BJ



Commodore and Amstrad conversions – an update

Tony Kendle with the latest news on many long-awaited conversions of successful titles. Plus: the first part of the complete solution to Gargoyle's Marsport

Because the Spectrum and Amstrad computers share the same Z80 microprocessor it is not uncommon to find that both versions of a game are written by the same team, but when it comes to the Commodore, there has to be new expertise brought in and sometimes a new game results.

This has happened recently with the extremely successful and widely acclaimed release of *Zelda*, the Commodore version of which seems very different to the Z80 ones. We've had a few tips for the game already but I would like to ask anyone who has any info for the game in particular on the Commodore version, to send it in.

Whilst talking about conversions, any readers who were put off by the recall of Amstrad *Elite* by Firebird may be interested to know that all problems have now been fixed and that a fully working version should be in the shops at the time you read this.

General verdict

For some strange reason the whole industry seems to have trouble keeping up with conversions for Amstrad machines. It's all too common to see the words 'Amstrad version soon' (for which we can sometimes read 'possibly never') in the ads, which is strange for what is, after all, the best-selling new home micro for years.

Another Amstrad release that we seem to have been waiting ages for is *Monty On The Run* from Gremlin, the game that rewrote that definition of background music even on the already tuneful Commodore. I understand that this will be appearing by the end of the month and the good news is that Gremlin feels very pleased with the conversion.

One game that I have got many inquiries about, but very few hard facts, is the Amstrad version of *Commando* – in computing terms it is not really that far behind the Spectrum/Commodore versions but it is so eagerly awaited that it seems like ages.

In the meantime Alligata is cleaning up with *Who Dares Wins II*, a very playable game indeed but generally agreed to be not as good as *Commando* on those machines where versions of the latter exist.

For the Spectrum, Ultimate's *Cyberun* has finally surfaced, only to be met with general disappointment all round – 'It's just a shoot-up without any real technical innovation' seems to be the general verdict. Being more of a traditionalist and a fan of shoot-ups, I will personally reserve judgement on *Cyberun* until I've played it longer.

It seems that Ultimate can't win these days, and it makes me wonder whether there has been a shake-up behind the scenes with the departure of whoever had the good ideas. The acclaim that games like Ocean's *Batman* received, compared to *Nightshade*, shows that it isn't just the idea of 3D games (for example) that people are bored with – there *is* still a market if the plot is good.

Commodore owners are perhaps in a better situation in that they have a steady trickle of often excellent software from US Gold, most of which is already in the can when the adverts appear. This level of competition has put off some home computer software companies from attempting Commodore conversions, but the good news is that Gargoyle Games, producer of our most consistently innovative and high quality releases, has relented on its 'no Commodore' policy for its next game, *Heavy on the Magick*.

Everyone who has seen this in the office has been knocked out by it – the quality of the animation and the sense of fun are outstanding and Roy Carter of Gargoyle promises that it will be a long time before anyone solves this one.

Sticking with Gargoyle for a bit, readers who ordered copies of our *Arcade Champions Guide* will no doubt be making good use of the *Marsport* map that it contains. However, to mark the occasion of the new game we will give the complete *Marsport* solution over the next few weeks.

Sense of fun

I'll assume that everyone has got at least as far as getting the gun and knows how to keep it charged. For those who haven't seen the map I'll repeat the point that the sept warriors move in consistent directions around a square – if you know which way they go you can often avoid them altogether. If you meet a sept coming at you in the middle of one corridor you can be sure that if you keep walking the next one will be in the middle of the next corridor, and so on. When entering a new area, or a part where the sept go in both directions, wait until one comes into sight



Heavy on the Magick from Gargoyle Games

and head towards it. In that way you can be sure not to bump into them at the corner.

Warden robots can go in any direction and are much more tricky. You can wait around until you see them coming, but even this is not foolproof if you want to go into the corridor that they come from – *always* save the game when near them.

The first task is to get the baking tin, water and flour from Daley level. Go to the bakery in Daley and *Factor* these to make a cake. The cake is the key to the bakery. In the bakery you will find some dough.

Also on Daley level you will find some charcoal – keep this.

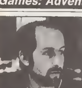
To get through the danger door on Ellis level you must take the dust bomb and put it in the refuse shoot. Do this every time you pass through. Once through you will find access to many more levels – most immediately Joly and Iaxa.

The next job is to get through the danger room on level Iaxa C. To do this you need a gas mask, so combine the gauze you find down on Joly with the charcoal to make a gas mask. With this you can enter the danger room. When the bomb has gone off, place the gas mask in the locker in the danger room for further use.

Once through you will be able to find the ice room which contains an ice pack and a cornet (geddit?). More next week.



HEWSON



Adventure designers – growing numbers

Tony Bridge evaluates a new adventure writer for the Spectrum, an area where the Quill has recently reigned supreme

Until quite recently the only adventure-writing utility available to the general public (apart from one's own programming ability) was Gilsoft's *The Quill*, which regular readers will know gets my personal vote for the most useful program ever released, and surely largely responsible for the current popularity of adventures. There are now a couple more such utilities for the Amstrad, but apart from the ill-fated *Graphic Adventure Writer* from Dream Software, *The Quill* has reigned supreme for the Spectrum. But not for long, I think, if J Hyde has anything to do with it! A copy of his suite of programs called, with great imagination, *Adventure Writer* landed on the Grand Elf's desk a couple of weeks ago, and it's certainly a viable alternative to the *Quill* route.

The package consists of three modules to aid the adventure writer, and a free adventure written with the utility itself. The emphasis throughout the package is on user-friendliness, and I found the modules to be very much easier to use than *The Quill*, though a similar database style is used. The ease of use is evident from the start from the manual, which is a sheet of A4 folded in half, but this is entirely sufficient for the average dunderhead like me.

The Writer is the first module, and it is this program that the author will use to construct the framework of his or her adventure. The editing menus are all driven by the cursor keys to select the options and the plus and minus keys to change the values. From the colourful main menu you will be able to edit location, object and command texts as well as setting the dimensions of the adventure – thus you can elect to change the number of locations for example, or the number of objects and so on, each change affecting the other values. The default values set at the start are 120 locations, 150 words in a location or object description and 100 objects, commands and recognised words, and although these can be changed, it is at the expense of the others, so a fine balancing act is called for.

Once the parameters of your adventure are set (up to 800 locations, even more are possible though impractical, and 500 words or 250 objects), the main menu allows selection of one of the other editors, each of which displays a sub-menu after choosing the number of the location, command or object to be worked on. The manual is very short, but is hardly needed as each menu is almost completely self-explanatory.

Choosing the location editor displays the description box, changed to reflect the length that has been selected from the dimension editor, and into which you will type the description of the location. Beneath this is a list of directions available from the location together with the location to which each connects.

Sudden death

The usual compass points are present as well as up and down and a couple of unusual ones – 'time' allows for a location to which the game jumps in certain circumstances (when offered a command that it doesn't recognise), useful for timing situations (for example "you hear footsteps approaching") while 'chain' joins two locations together, thus allowing for a longer description than you may have decided upon for the rest of the adventure. As well as these options, you may elect to make the location an 'end' location, that is one which, when visited, brings about a 'sudden death' finish to the game.

Via the command editor, the author then defines each separate command, telling the program which object the player must be carrying before a command is obeyed, what the computer's reply will be (thus, a specific reply to 'help', for example, may be given), any alternative input recognised and so on. Several universal commands, such as *Save, Load, Inventory, Drop, Get* and so on, as well as all the direction commands, are built in, and do not have to be defined.

The object editor is a little different: unlike the previous two sections, which presented each location or command on its own screen, objects are presented as a list, as each object can be described on one line. Against each number, the author types in the name of the object, the weight and the starting position. The weight parameter is particularly interesting, with each degree of weight returning a different reply (so 'one or two' means the object can be picked up – if your load is getting too heavy, you'll get 'you can't', 'don't be silly' and so on).

Weird objects

That's all there is to planning your own adventure; the second module on the tape amalgamates all the information together under your filename and creates a stand-alone game. The third program allows a printout of all the adventure data, though sadly only to a ZX or ZX compatible printer.

Last but not least is the example adventure, *The House of the Dead*, which shows the strengths and weaknesses of the system. The adventure itself is well worth playing, with some interesting problems and locations. I particularly like the way in which the player must choose just a few of a multitude of wierd and wonderful objects near the start. A few locations into the game, and you'll find a one-way connection, so the correct objects must be carried, and the program very sneakily gives vague clues which seem to make every object desirable.

The only drawback is that the *Writer* and the adventure it creates is in Basic, and so the responses are typically 4-5 seconds. Of course, we have now been subjected to *very* expensive adventures with 20 second responses! The screen layout is a little pedestrian, but a graphic utility is promised soon, which I look forward to with relish. Mr Hyde's *Adventure Writer* is the best value I have seen for many months at just £6.95 (£5.95 for the graphic utility) from J Hyde, 303 Buxton Road, Macclesfield, Cheshire, SK11 7ET.

Adventure Helpline

Going bananas? If you are stuck in an Adventure with nowhere to turn do not despair – help is at hand.

Fill in the coupon explaining your problem, send it to us and a fellow adventurer may be able to help.

Remember – the system only works if those adventurers who have solved the puzzles get in touch. Every week is Save An Adventurer Today (SAAT) week!

Adventure .... on (Micro) ....
Problem ....
Name ....
Address ....

ADVENTURE HELPLINE

Fourth Protocol on Spectrum I cannot get contact from BT and am unable to travel to Sweden Kevan Zammit 373 Portsmouth Road, Sholing Southampton

Mission 1, Project Volcano on Spectrum. I can't seem to get past the droid in the lift to get to level two John Stewart, 12 Fairlawn Court Cherry Orchard Estate London SE7 7DK

Deadline on Commodore 64 How do I solve the murder and complete the game? M Tortelano 11 Douglas Terrace Stirling Scotland

Warlord on Spectrum How do you get the amulet from the druid? Leslie Battell 6 Gatmen Close, Abingdon Oxon

Hitchhiker's Guide on RM PC How do you open the screening door – or do you? E Sheehan Box 100, 7 N Audley Street, London W1

Hampstead on BBC. I know I need a lathe bracket before getting on the train How do I get it? Dave Patient, 16 Deloraine House, Tanners Hill London SE8

Empire of Karn on C64 I can't get the diamond nor the sapphire, nor get into the palace and hole in the roof Lisa Bingley 49 Logan Street, Mkt Harborough Leics (0858 66456)

The Hobbit on C64. I am trapped in the goblin' dungeon and cannot reach the window C Cerrington 187 Gayfield Avenue B Hill West Midlands DY5 2BP

Castle Quest on BBC. How do I use the wand? Jimmy Ho 119 High Street, Plumstead, London SE18

Sphinx on Electron I can't get anywhere except the forest and the lake. Debbie Walker 112 Stapleton Hall Road London N4 4QA

Lord of the Rings on Spectrum. I can't find Strider or scale the wooden gate Anna Waterhouse 20 Alan Road Withington, Manchester M20 9NG

Catacombs on Plus/4 I can't remove the boulder blocking the way very early on in the game David Sepeke, 15 Kent Drive, Cockfosters, Herts

Lord of the Rings on Spectrum I can't get out of the maze of trees which move Paul Hunter, 111 Tildesley Road Putney London SW15 3AU

St Brides on Spectrum. Where is the cat? W Maidens 32 Varney Road, Hemel Hempstead, Herts.

Supersam on Spectrum Need code for second level to enter Armageddon Mrs H Baldwin, 16 Park Drive, Quedgeley, Gloucs

Sorcerer of Claymorgue Castle on Spectrum I'm in the castle I've got a star and some spells – how do I progress from here? Do I use the star? Plt Off A I M Torrance Officers Mess RAF Finningley Doncaster S Yorks.

Zork 0 on C64 How do you get past the dragon? Why does the wizard appear? What is circular room? Is it a cell? How do I climb up? What do the letters on the cell of the circular room mean? What is the bucket for? How do I get the key from the unicorn? What does it open? How do you get past the wizard's head on the door? What is the candy for? How do I get past the menhir? Darren Gregery 29 Ludlow Grove Bispham, Blackpool Lancs

Mordon's Quest on Atari How do I get to the octopus and get past the invisible barrier? John Woolston 401 Shenley Road Borehamwood Herts

Colossal Cave (550 pt) on CP/M. How do I explore plover room and how do I open the walk-in safe? David Lare, Carlton House, Todmorden Road Bacup, Lancs

Sphinx Adventure on Electron. I cannot find the mouse G Hamer 201 Athlone Avenue Bolton, BL1 0QS

House on Damned Hill on Spectrum. How do I get into the house? Heather Lofthouse 30 Graham St, Liverton Saltburn Cleveland

GAMES

TIME RACE

by Shane Dawson

The object of this game is to use the joystick hard since barriers are placed at random to block your way. There is also a 20 second time limit and once the time runs out the game ends.

You only have one life, and this is lost when you run into a barrier. Level one is quite easy since there are only 40 barriers, but as you progress to the next level (after reaching the top of the screen) it becomes harder as more barriers are placed in your way. Forty more barriers are added at each level. Good luck!

Program Notes

Variables

X	– Barrier (x value)
Y	– Barrier (y value)
A	– number of barriers
LV	– Level
TI$	– Time
C	– Colour value
J	– X coordinate of player
Y	– Y coordinate of player
D	– Number of barriers (pairs) permitted on each level
H	– Used for collision detection
P	– Start of screen memory
E U	– Other variables

Line No	
40	Clear variables
50	On error goto line 310
60-90	Set variables & volume & colours. Clear screen
100-120	Random x and y values for barriers. Print them on the screen
130	Colour of barriers
140	Sends to line 90
150	Set time at 0 seconds
160-200	Checks joystick input.
210	Collision detection
220	Print player on screen and check for collision
230	Sends to line 340
240	Check to see if time is 20 seconds
250	Sends to line 160
260	Colour (brown)
270-290	Print time, level and number of barriers on that level
300	Returns to joystick input.
310-320	Set colours and clear screen.
330	End program
340	Sound affects
350	Printout game over
360	Time loop. Sends to line 410
370	Increase level and barriers. Place man at bottom of screen
380	Set time to 0 seconds
390	Sound affects
400	Send to line 60
410-430	Ask for another game
440-460	Check joystick input and send to appropriate line number
470	Send to line 440

```
10 REM **  --RACE AGAINST TIME--  **
20 REM **                         **
30 REM **      BY SHANE DAWSON    **
40 CLR
50 TRAP 310
60 A=0:C=2:D=15:LV=1:J=20:K=24:VOL8:P=3072
70 COLOR4,1:COLOR0,1
80 SCNCLR
90 COLOR1,C,4
100 X=INT(RND(1)*37)
110 Y=INT(RND(1)*23)+1
120 CHAR1,X,Y,"[illegible]":A=A+1:IFA>DTHEN150
130 C=C+1:IFC>16THENC=2
140 GOTO90
150 TI$="000000"
160 GETA$:IFJOY(2)=0THENGOSUB260
170 IFJOY(2)=1THENK=K-1:CHAR1,J,K+1," ":IFK=0THENGOTO370
180 IFJOY(2)=5THENK=K+1:CHAR1,J,K-1," ":IFK>24THENK=24
190 IFJOY(2)=7THENJ=J-1:CHAR1,J+1,K," ":IFJ<1THENJ=1
200 IFJOY(2)=3THENJ=J+1:CHAR1,J-1,K," ":IFJ>38THENJ=38
210 H=PEEK(J+K*40+P)
220 COLOR1,10:CHAR1,J,K,"*":IFH<>32THEN340
230 GOTO240
240 IFTI$="000020"THEN340
250 GOTO160
260 COLOR1,10
270 CHAR1,0,0,"TIME  ":PRINTTI$,
280 CHAR1,14,0,"LEVEL ":PRINTLV,
290 CHAR1,25,0,"BARRIERS  ":PRINTA*2
300 RETURN
310 COLOR0,2:COLOR4,7,6:COLOR1,1
320 SCNCLR
330 END
340 FORP=800TO0STEP-20:SOUND1,P,5:SOUND2,P+8,2:NEXT
350 COLOR1,10:CHAR1,10,12,"G A M E   O V E R"
360 FORE=1TO1000:NEXT:GOTO410
370 D=D+20:LV=LV+1:K=24:J=20:C=2:A=0
380 TI$="000000"
390 FORU=1TO800STEP20:SOUND1,U,2:SOUND2,U+5,2:NEXT
400 GOTO90
410 COLOR1,9:PRINT"[illegible]ANOTHER GAME?"
420 PRINT:PRINT"          JOYSTICK(UP)=YES"
430 PRINT:PRINT"          JOYSTICK(DOWN)=NO"
440 GETA$:IFJOY(2)=0THEN440
450 IFJOY(2)=1THENRUN
460 IFJOY(2)=5THEN320
470 GOTO440
```




SUBMARINE

by Daniel Bishop

This is a game for one player and as well as having an arcade appeal it is also a game of deduction and sensory perception!

The scenario is fairly straightforward. You are the captain of a fast sub destroyer and have orders to locate and destroy an enemy submarine in your vicinity. However, you only have a limited amount of time and just ten depth charges. To help you find the submarine you will have to listen carefully to your sonar soundings.

When you run the program the screen display will appear. The computer will then wait for you to either press a key, move the joystick or press the fire button. When you do this the game will start.

The large blue oblong is an aerial view

of the sea. The white symbol is your ship. You may cruise around this area of sea but may not leave it. Neither may the submarine. At the bottom of the screen there are two gauges which show the current speed and helm position of your ship. Also shown are the number of depth charges and the time left.

To increase the throttle, push the joystick forward (or press the + key). To decrease the throttle, pull the joystick back (or press the ? key). To bear left, push the joystick left (or press the Z key) and to bear right, push the joystick right (or press the X key). Practise manoeuvering your ship. It may take some getting used to and bear in mind that the helm is more sensitive at high speed.

At the start the submarine will be out of sonar range. You must search the sea to find where the sub is hiding. Once in range, the sub will reflect the sound pulse of your sonar. You will hear the faint echo shortly after each pulse is sent out. As you home in on the submarine, the delay between the outgoing and incoming pulses will decrease. Also your sonar will automatically start to pulse more frequently. You should learn to judge the range of the submarine by listening to the pause between the outgoing pulse and its echo.

More program notes and listing next week.

```
10 REM- LOCATE & DESTROY' / A solo game
20 REM- ----------------------------------
30 REM  by DANIEL J. BISHOP
40 REM- -----------------------
50 REM  Version 1.0A
60 REM- Runs on CPC464/CPC664/CPC6128
70 REM- ----------------------------------
80 MODE 2:BORDER 11:INK 0,26:INK 1,2
90 SYMBOL AFTER 224
100 SYMBOL 224,0,16,56,56,56,56,56,0
110 SYMBOL 225,0,0,4,24,56,112,32,0
120 SYMBOL 226,0,0,0,0,255,254,0,0
130 SYMBOL 227,0,32,112,56,24,4,0,0
140 SYMBOL 228,0,28,28,28,28,28,0,0
150 SYMBOL 229,0,4,14,28,24,32,0,0
160 SYMBOL 230,0,0,127,255,0,0,0,0
170 SYMBOL 231,0,0,32,24,28,14,4,0
180 DEF FNrange=INT(SQR((SHIPX-SUBX)^2+(SHIPY-SUBY)^2+SUBZX^2))
190 DEG
200 ENV 1,20,0,1,15,-1,3
210 ENV 2,9,-1,2
220 ENV 3,6,2,5,12,-2,10
230 DIM SHIP$(7)
240 FOR L0%=0 TO 7:SHIP$(L0%)=CHR$(224+L0%):NEXT
250 SCORE%=0
260 LOCATE 1,23:PRINT " H.M.S. "TAB(21)"SPEED"TAB(46)"HELM"TAB(68)"CHARGES"TAB(74)"TIME"
270 PRINT " ARNOLD":PRINT TAB(13)"IDLE"TAB(23)"FULL AHEAD"TAB(38)"PORT"TAB(49)"STARBOARD"
280 MOVE 95,20:DRAWR 0,9,1:DRAWR 161,0:DRAWR 0,-9:DRAWR -161,0
290 MOVE 240,20:DRAWR 0,9:DRAWR 161,0:DRAWR 0,-9:DRAWR -161,0
300 MOVE 374,18:DRAWR 0,13
310 ORIGIN 0,56,0,637,399,56:CLS 1
320 SHIPX=RND(1)*639:SHIPY=RND(1)*383:SUBZX=RND(1)*15+1:SHIPD%=RND(1)*360:SUBD%=RND(1)*360
330 SUBX=RND(1)*639:SUBY=RND(1)*383:IF FNrange<200 THEN GOTO 330
340 SPD%=0:HELM%=0:DC%=10:TM%=10:SONAR%=-1:SUBZD%=-1:GAMEND%=0
350 TP$="...LOCATE & DESTROY'. .":GOSUB 1640:PRINT CHR$(8);CHR$(32)
360 S$=INKEY$:IF S$<>"" THEN 360
370 WHILE S$="" AND JOY(0)=0:S$=INKEY$:WEND
380 FOR L0%=0 TO 2000:NEXT
390 TM=TIME
400 GOSUB 670
410 RANGE%=FNrange
420 IF SUBZ%<=3 AND RANGE%<=6 THEN ENEMDY=1:GOSUB 1120:GOSUB 1490:GOSUB 1360:GOTO 320
430 IF TM%=0 THEN GAMEND%=2:GOSUB 1490:GOSUB 1360:GOTO 320
440 IF SUBZ%<=3 AND RND(1)<0.1 AND RANGE%<100 THEN GOSUB 1400:IF GAMEND%=3 THEN GOSUB 1120:GOSUB 1490:GOSUB 1360:GOTO 320
450 SOUND 2,100-SPD%*5,50,SPD%*0.3+1,1:IF SONAR% THEN GOSUB 1260:SONAR%=0:IF RANGE%<150 THEN AFTER 10+RANGE%^1.3/5 GOSUB 1290 ELSE AFTER 150 GOSUB 1330
470 IF INKEY(54)=0 THEN GOSUB 810:TP$="..LOCATE & DESTROY'. .":GOSUB 1640:PRINT CHR$(8),CHR$(32)
480 USER%=JOY(0)
490 IF INKEY(28)=0 THEN USER%=USER%+1
500 IF INKEY(30)=0 THEN USER%=USER%+2
510 IF INKEY(71)=0 THEN USER%=USER%+4
520 IF INKEY(63)=0 THEN USER%=USER%+8
530 IF INKEY(47)=0 THEN USER%=USER%+16
540 IF (USER%>=16 AND USER%<=24) THEN GOSUB 1050:GOSUB 1360:GOSUB 870 ELSE 570
550 IF GAMEND%=4 THEN GOSUB 1120:GOSUB 1490:GOSUB 1360:GOTO 320
```


CAPSCLOCK

by D Witheroe

Carrying on from last week, you should now have your Capsclock code installed. Of course, there's no point in adding a clock to Quill if it doesn't tell the correct time. That means setting the system clock before you start. To take the strain out of this, I've written a clock setting routine which can be merged into the boot program.

Enter the program below taking care to get the line numbers exactly right. Save it as say, *mdv1-timeset* now load the original 'boot' file and *Merge mdv1-timeset*. Note that you must load boot and merge timeset *not* the other way about. Then delete the original 'boot' file and save the modified file as 'boot'.

On the subject of modifying Capsclock, the window positions chosen were selected specifically to suit Quill in 80-column mode. If you wish to use the program in another mode or with another program you may have to alter these position. You may want to change the *Paper* and *Ink* colours used and perhaps add borders to the windows.

The relevant numbers in the data statements of the Basic loader (printed last week) can be altered according to the table below. But you'll no longer be able to use the error-checking in the loader program, since some checksums will no longer be correct: hence the option to turn the error-checking off.

For those values which require two numbers to be altered, you divide the value you want to enter by 256, the result of the division goes in the first number and the remainder goes in the second. If you want to add a border to either or both of the windows you must also adjust the window width and height to make room for the border. The formulae for calculating the necessary window size are:

Window width = Text width + (border * 4)
Window height = 10 + (border width * 2)

Text width for the Caps Lock window is 54, for the clock window 120. That's if you are running the program in monitor mode. I haven't experimented with TV mode, but I should think you'd have to double these values to get Capsclock to run in that mode.

Copies of both programs can be obtained from me, on microdrive for £4. Cheques to 18 Glen Lyon, St Leonards, East Kilbride, G74 2JJ.

continued over the page ▶

Line	Column	Orig Num	Alteration
			To alter clock window
20240	1	0	Border colour
20240	2	0	Border width
20240	3	0	Window paper colour
20240	4	7	Window ink colour
20240	5 6	0 120	Window width
20240	7 8	0 10	Window height
20250	1,2	0,169	X-coord of top left corner of window
20250	3,4	0,246	Y-coord of top left corner of window
			To alter CAPS LOCK window
20250	5	0	Border colour
20250	6	0	Border width
20250	7	0	Window paper colour
20250	8	4	Window ink colour (colour of CAPS)
20260	1 2	0 64	Window width
20260	3 4	0 10	Window height
20260	5 6	0,114	X-coord of top left corner of window
20260	7 8	0 236	Y-coord of top left corner of window
			Other values that can be altered
20180	2	4	Colour of CAPS set to same as window ink
20130	6	7	Colour of CAPS LOCK indicator need not be same colour as window ink
20050	3 4	1 194	Initial start delay length in QDOS cycles (initially 450)

```
1 CLEAR
2 WINDOW 512,256,0,0:CSIZE 1,0:PAPER
  2:CLS:GO SUB 10:CSIZE 2,1
8 EXEC mdv1_capsclock:EXEC_W mdv1_quill
9 OPEN #1,scr:OPEN #2,scr:STOP
10 WINDOW 180,160,156,50
11 PRINT DATE$:INPUT ('Reset clock?
   [Y/N]')!a$
12 IF a$='N' OR a$='n':WINDOW 512,256,0,0:
   CLS:RETurn
13 INPUT ('Year [eg. 1986]')!y:INPUT ('Month
   [1-12]:')!m:INPUT ('Day [1-31]:')!d
14 INPUT ('Hour [1-23]:')!h:INPUT
   ('Minutes:')!n:INPUT ('Seconds:')!s
15 SDATE y,m,d,h,n,s:CLS:GO TO 11
```

For brevity's sake, this routine has not been error-trapped; if you input a string rather than a number into one of the date parameters, or even just <ENTER>, the program will crash. If you regularly boot from F2, change line 10 to:

```
10 WINDOW 360,160,66,50
```

Spectrum

HEADER

by Paul Murray

This week, we continue our series of machine code utilities. Header is a routine that reads the header information for a recorded file and provides detail of that file

As well as giving the name of the file and its type (eg *Bytes Program* etc) this routine gives its length and start. In the case of arrays start is meaningless and may be ignored. For code, it indicates the address at which the code should be loaded and for programs it gives the line number from which auto-running occurs

If the program does not auto-run, then the message "No Line" is displayed. Length indicates the total length (in bytes) of the file. The routine is called by *Randomize Usr 64010*

Type in the code with the Loader program we printed in Vol 5 No 14 – which incidentally, will work a little better if you insert 50 For n=start to finish Step 5

Also on the subject of errata, we also publish this week the remainder of the Trace code printed in the same issue. Next week, an On Error command plus a Block Delete facility

Meanwhile, Paul Murray is still selling the whole suite of programs on tape, for the sum of £3. Write to him at 5 Hanham Mills Hanham Bristol BS15 3NU

[illegible]

[illegible]



DATA TRANSFER

by Ian Coe

Many Atari ST users will have upgraded from other computers and like me may have quite a large collection of programs and document files and the daunting prospect of retyping them onto the new system prompted me to see if a way could be found to transfer the files using the RS232 interface on the Atari

My old computer system was a 48K Spectrum, Interface 1 plus Microdrive and I had some 2 Mb of *Tasword 2* and *The Last Word* files on microdrive cartridge I have transferred almost all of them using the link and software described below with only a small amount of work necessary to convert them to *1st Word* files.

Although the RS232 configuration, lead connections and programs are for Spectrum-Atari transfer, ASCII files can be transferred from any computer with an RS232 port using this network For example, there seems to be no reason why the RS423 port of the BBC microcomputer could not be used for this transfer process A program would need to select the port using **FX5 2*, then *VDU* and *PRINT* commands to send the files I have deliberately written the programs to be as portable and as simple as possible without any complicating features – they only have to work once for each file transferred, not to look clever!

The RS232 configuration on the Atari ST is set from GEM desktop as shown The baud rate may be set to lower than 9600 if necessary, but in my system this was perfectly satisfactory Any change should be reflected in the *FORMAT* command given to the other computer

It took a good deal of trial and error before the correct pin connections were found A flat ribbon cable with a Male 9 way D connector was used on the Spectrum end and a Female 25 way D connector on the other The pin connections for the Spectrum-Atari link should be as shown in the table

Spectrum *Tasword* files are held on microdrive as code loaded to address 32000 *The Last Word* Data files can be transferred direct using the *Move* command, or can be loaded into memory and then transferred Fig 2 lists a very simple Spectrum Basic program that loads the Tasword file, opens the channel and then prints the ASCII bytes onto it

Spectrum	TX 2		2 TX	Atari
	RX 3		3 RX	
9 way D	DTR 4	connected	20 DTR	25 way D
plug (male)	CTS 8	to	5 CTS	plug (female)
	ground 7		7 ground	

At the Atari end of things, use is made of the *Inp(n)* command This reads a byte from a selected input port where the (n) suffix is used to specify the assignment. *Inp(1)* reads a byte from the RS232 port, the status being determined by a negative port value Thus *INP(-1) = 0* indicates no character is available Fig 3 gives an Atari Basic program that takes the bytes and reads them onto disc in a format that *1st Word* can use

The computers are linked with the cable prior to switch-on and the programs loaded into the respective computers The name of the file to be transferred is entered into the Spectrum together with its length

The Atari Basic program is run needing only a file-name to begin A *DOC* extension is added automatically to allow the *1st Word* program to identify it properly After a short period of time the Spectrum screen should flash periodically and the Atari disc drive growl as the data is transferred

A fair bit of trial and error is needed, but using the ideas above it should be possible to make working copies of most Tasword files onto the Atari ST

Fig. 2 Spectrum Program

```
10  FORMAT "n";9600:REM          { the default value }
20  OPEN#4;"b"
30  INPUT "Name of file : ";a$
40  INPUT "Length of code : ";l
50  LOAD* "m";n;a$ CODE;32000    { where n is drive number}
60  FOR n = 32000 TO (32000 + l)
70  REM PRINT CHR$(PEEK(n));: REM { If you want to see it }
80  PRINT#4;CHR$(PEEK(n));
90  NEXT n
100 CLOSE#4
101 REM
110 PRINT "Program transferred- press any"
120 PRINT "key to get back to Basic"
130 PRINT "Use [Control]-C or Break to"
140 PRINT " [illegible] Enter CLOSE 1 "
150 PAUSE 0
151 REM
160 OPEN#4;"b"
170 FOR n = 1 TO 128
180 PRINT#4;" ";
190 NEXT
[illegible] CLOSE#4
210 STOP
```

Fig. 3 Atari Program

```
2     on error goto 200
5     closew 0:fullw 2
10    input"filename: max 8
      letters - .DOC will be
      added";f$
15    let f$=f$+".DOC"
20    open"O",#1,f$,1000
30    let l= 44
50    for a=1 to (l-1)
60    let x= inp(1)
70    print chr$(x);
80    print#1,chr$(x);
90    next
95    let x = inp(1)
100   print chr$(x)
110   print#1, chr$(x)
120   goto 50
200   close 1
210   stop
```

Fig. 1 RS232 settings on the Atari

File Edit Block Style Help

RS232 PORT CONFIGURATION

Baud Rate:	9600	4800	1200	300
Parity:	None	Odd	Even	
Duplex:	Full	Half		
Bits/Char:	8	7	6	5
Strip Bit:	On	Off		

Flow Control

Xon/Xoff:	On	Off
Rts/Cts:	On	Off

OK Cancel

Border on Spectrum
by Keith Ratcliffe

This is a short routine that creates a flashing border around part of the top of the screen. Alternate squares flash opposite to each other, so that a sense of movement is obtained – quite like a flashing neon sign.

It is called by a FN call and the three parameters are ink, paper and lines – the latter being the number of lines the box extends down the screen.

The routine is protected from lines being greater than 20, and is located in the print buffer.

```
1 REM ** RUN program **
2 REM ** then GOTO 20 to repeat*
5 GO SUB 9000
10 DEF FN u(i,p,l)=USR 23296
20 INPUT "ink";i
30 INPUT "paper";p
35 INPUT "lines";l
40 LET s=FN u(i,p,l)
50 STOP
9000 FOR i=23296 TO 23390: READ a: POKE
i,a: NEXT i
9010 DATA 221,42,11,92,221,94,4,221,70,1
2,62,0,128
9020 DATA 40,7,123,198,8,16,252,24,1,123
,198,128,79,221,70,4,221,94,12,62,0,128,
40,7,123,198,8,16,252,24,1,123,198,128
9030 DATA 33,0,88,6,16,119,35,113,35,16,
250,245,221,70,20,62,20,184,48,2,6,20,24
1,203,56,30,31,22,0
9040 DATA 113,25,119,35,119,25,113,35,16
,246,6,16,113,35,119,35,16,250,201,0,0
9050 RETURN
```

Colour Control on BBC
by N Whiteley

Mode 7 on the BBC micro is the ideal mode for adventure programs and other games/applications which produce a lot of text since the characters are clear, well defined and you have over 20K in which to write your program.

But there is a problem in that if you are using colour, you start getting a mass of Chr$'s for every line of text that you display (for paper, ink, flashing and double height) which not only takes a lot of memory, but is very hard to understand. Not only that, if you clear the screen all the paper and ink colour gets lost and you have to do it all over again.

Colour control is a very useful utility which saves memory, makes displays extremely easy to produce more elegant and when you clear the screen the paper and ink colour will still remain. Just type in the program and when you run it you will be given the command syntax, instructions and a demonstration.

```
10 REM ********************************
20 REM **                            **
30 REM ** Colour Control for the     **
40 REM ** BBC Micro in mode 7        **
50 REM ** (C) N.A.Whiteley.          **
60 REM **                            **
70 REM ********************************
80
90 REM ** DEMONSTRATION PROGRAM &    **
100 REM ** INSTRUCTIONS FOR USE. ..  **
110
120 MODE7
130 PROCCOLOUR(4,2,0,1,0,1,0,0)
140 PRINT"Colour control By N A Whitel
ey."
150 PRINT"Colour control By N A Whitel
ey."
160 PROCCOLOUR(INT(RND(1)*6)+1,INT(RND
(1)*6)+1,0,0,2,21,0,2)
170 PRINT"SYNTAX:"
180 PRINT"PROCCOLOUR(P,I,F,H,B,E,C,L)"
190 PRINT
200 PRINT"PARAMETERS:"
210 PRINT"P = PAPER (0-7)"
220 PRINT"I = INK   (1-7)"
230 PRINT"F = FLASH (0=OFF 1=ON)"
240 PRINT"H = HEIGHT(0=OFF 1=ON)"
250 PRINT"B = BEGIN (0-24) ROW"
260 PRINT"E = END   (0-24) ROW"
270 PRINT"C = COLUMN(0-39) TAB"
280 PRINT"L = LINE  (0-24) TAB"
290 PRINT
300 PRINT"AVAILABLE COLOURS:"
310 PRINT"0 = BLACK"
320 PRINT"1 = RED"
330 PRINT"2 = GREEN"
340 PRINT"3 = YELLOW"
350 PRINT"4 = BLUE"
360 PRINT"5 = MAGENTA"
370 PRINT"6 = CYAN"
380 PRINT"7 = WHITE"
390 PROCCOLOUR(INT(RND(1)*6)+1,INT(RND
(1)*6)+1,0,0,2,24,0,2)
400 A$=INKEY$(1000)
410 GOTO390
420
430 REM ** COLOUR CONTROL ROUTINE    **
440
450 DEFPROCCOLOUR(paper%,ink%,flash%,h
eight%,begin%,end%,column%,line%)
460 IFpaper%=0 THEN col=156 ELSE col=1
57
470 display$=CHR$(paper%+128)+CHR$(col
)+CHR$(ink%+128)+CHR$(137-flash%)+CHR$(h
eight%+140)
480 VDU26
490 FOR row% = begin% TO end%:PRINTTAB
(0,row%);display$;:NEXT
500 VDU28,5,24,39,0
510 PRINTTAB(column%,line%);
520 ENDPROC
```

Rom Transfer on C64
by D Light

When run, this short machine code routine copies both character sets located in Rom at $D000 (53248 decimal) into Ram starting at $3000 (12288 decimal). The routine also turns off and then back on again keyboard and I/O interupts.

If only one character set is required, proceed as follows. To locate a character set at 12288-14335 decimal, change the last data byte in line 20000 from 64 to 56.

To locate a character set at 14336-16383 change the 48 in line 20001 to 56. The "OR 12" in line 50 will also need to be changed to "OR 14".

When run, ignore the "Error in Data" message and type – *GOTO 40*

```
0 REM********************************
1 REM****** M CODE ROM COPY ******
3 REM****** BY-- D.W.LIGHT  ******
5 REM********************************
10 A=52000
20 READD IFD<>-1THENPOKEA,D A=A+1 C=C+D GOTO20
30 IFC<>9214THENPRINT"ERROR IN DATA" STOP
40 PRINT"SYS52000 REM**PRESS [RETURN]"
50 PRINT"POKE53272,(PEEK(53272)AND240)OR12 REM**PRESS
   [RETURN]"
60 POKE631,19 POKE198,1 END
70
20000 DATA 173,014,220,041,254,141,014,220,165,001,041,251,
      133,001,169,064
20001 DATA 133,002,169,000,133,251,169,048,133,252,160,000,
      132,253,169,208
20002 DATA 133,254,177,253,145,251,200,208,249,230,252,230,
      254,165,252,197
20003 DATA 002,208,239,165,001,009,004,133,001,173,014,220,
      009,001,141,014
20004 DATA 220,096,-1
```


E/D&D
MEGASAVE SOFTWARE
46 THE MALTINGS, STANSTEAD ABBOTS, WARE, HERTS
SUBSCRIBE
to Popular Computing Weekly and receive a free PCW binder holding 13 issues of your favourite weekly
Please enter my subscription to PCW for one year at £19.95 UK, £37.40 Overseas.
Name:
Address:
Return to PCW subs, 12-13 Little Newport St., London WC2H 7PP
TROJAN CAD-MASTER
THE ULTIMATE IN GRAPHICS TOOLS
SUPERB GRAPHICS SOFTWARE PLUS A TOP QUALITY LIGHT PEN
CBM 64
SPECTRUM
Discover the exciting world of creating your own graphics on screen.
• FREEHAND DRAW - 5 pen thicknesses inc Quills
• PAINT BRUSH - for the artistic touch
• FILL ANY SHAPE - use 16 colours and 11 patterns.
• GEOMETRIC SHAPES - circles, boxes, triangles lines & banding
• DYNAMIC RUBBER BANDING on all geometric options
• PIN-POINT FUNCTION - for pixel accuracy on all functions
Plus many more too numerous to mention in this ad All these features in the Program + a top quality Light Pen and an instruction booklet in one reasonably priced package Easy to use for creating colourfull pictures or technical drawings Ideal for use by all ages of micro users. Full back-up service from manufacturers Available at good dealers or direct from Trojan Products
Please state which Micro
ONLY £19.95 per pack
TROJAN
Micro Computer Software & Accessories
Send cheque/P O to
TROJAN PRODUCTS (PCW1)
166 Derlwyn Dunvant, Swansea SA2 7PF
Tel (0792) 205491
TRADE ENQUIRIES WELCOMED
ICON GRAPHICS for the Sinclair QL
CAD PAK
CAD PAK
DATALINK SYSTEMS (WALES)
A GAME FOR THE SINCLAIR QL
3D SLIME
Please send me
Copies of 3D SLIME at £12.95 each
Copies of CAD PAK at £14.95 each
Please add 75p P & P per item
TOTAL
Make cheques/postal orders payable to Datalink systems and send to Datalink Systems Glan Gors, Ynysalis, Dysed SY24 5JU
Name
Address
Postcode

Competition

WORK OUT THE WORD PUZZLE

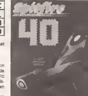
There is the penultimate part of the word grid where great rewards await you — specifically a Commodore 128D with colour monitor, two Atari 520 STMs with disc drives and 25 Mirrorsoft games. Commodore 64, Spectrum and Amstrad owners will receive a copy of *Spitfire 40*, while BBC owners will get *Strike Force Harrier*

L	M	D	O	N	A	R	F	W
T	M	E	D	I	T	O	R	D
U	U	C	T	F	E	F	X	D
P	S	N	F	R	P	T	N	I
T	K	E	X	I	R	D	R	W
U	C	B	H	R	D	Q	Z	C
D	E	C	Y	D	M	L	N	L
R	H	Y	C	H	B	I	B	U
K	C	L	A	T	I	G	I	D

How to enter

This is the third part of the competition and as usual the grid contains six words (of at least four letters) related to microcomputing. The words may be written forwards or backwards up or down (but not diagonally)

Once you ve found the 18 words, you'll need to hold on to them for just one more week. In the next issue, you'll find full details on how to enter, together with the official entry form. If you ve stayed with it so far (and you all have of course) it would be unspeakably foolish to miss out next week s issue. So why not have a word with your friendly, local newsagent?



COLOSSUS CHESS 4 WINNERS!

Many thanks to everybody who entered our *Colossus Chess 4* competition (*Popular Computing Weekly* March 6) We had a tremendous response so it's taken a while to sort through them all, especially as the entries were of a very high standard

The solution to the problem, shown below started with the key move of White s queen to square KR3 Black has no effective reply to this – whatever it does, White will checkmate next move



White must move and checkmate Black in two moves

Solution

1	Q – KR3	K – KN3
2	Q – KB5 + +	
1	Q – KR3	K – KR1
2	Q × P + +	
1	Q – KR3	P – KR4
2	Q × P + +	
1	Q – KR3	P – KN3
2	Q – Q7 + +	
1	Q – KN3	P – KN4
2	Q – KB5 + +	

The winners, who should have received their copies of *Colossus Chess 4* by now, were

A Torrance Salisbury Wilts, R Mackintosh, Helensburgh Dumbartonshire L W Vincent, Stowmarket, Suffolk; John McDonnell Pickering, N Yorks A Tester, Luton Beds E Miller, Blackley Manchester John Gould London N14 L A Wootton London SE1 G L Moore Maidenhead Berks M D Hurd Bargoed Mid-Glamorgan E Ellis, Bristol; Mark Haigh Hutchinson, Withington Manchester G A Salter Oxford S R Briggs Banbury Oxon A S Kerr Newton Abbott Devon, D Clewley Borehamwood Herts S P Bettis Rhyl Clwyd, Paul Fairclough Mold Clwyd, David S Gordge, Northolt, Middx, L Crossley Halifax, W Yorks, R J Halsall Wokingham, Berks P C Robertson, Hollywood Birmingham Paul Davies Solihull West Midlands Jonathan Davis Harvington Nr Evesham Warren Reid West Drayton, Middx.

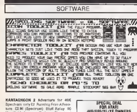


CLASSIFIED

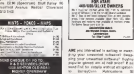
Semi-display — £7 per single cc (+ VAT)
Lineage — 30p per word (+ VAT)

CALL JON BEALES on *01-437 4343* FOR SEMI/DISPLAY ADVERTISING

SOFTWARE



KARTAGNGON 2 Adventure for 48K Spectrum only £2 Running Free Adventure £2.95 (Spectrum) Bluff Relay 90 Westfield Avenue Redcar Cleveland TS10 1HG



ARE you interested in selling or swapping your unwanted software? Swapping your unwanted software? Buying popular games etc at half price? If so send SaE for details without obligation to BarleyCorn Publications 30 Rickwood Horley Surrey RH6 9DF



FOR SALE



YOUR MICRO CAN MAKE YOU MONEY For fully descriptive brochure send 17p stamp to MTL Books (PCWI) 19a Bounds Oak Way Tunbridge Wells Kent. TN4 0TW

BLANK DISCS 5 1/4
10 DOUBLE SIDED/DD 96tpi reinforced hubs in a plastic library case with labels. **ONLY £10.95 PLUS £1 p&p. ATARI DOS 4 ONLY £4.95 FIX XL' (TRANSLATOR)** An extra 4K of RAM in machine code **ONLY £3.85** Sae for more information. *Cheques to* — **STORT SOFT 18, CROWN CLOSE SHEERING BISHOP'S STORTFORD HERTS CM22 7NZ**



FACILITY ENTERPRISES
YOUR LATEST MSX
MAIL ORDER
SOFTWARE SOTCKIST
—
OVER 300 TITLES
IN STOCK
—
Send SAE for List
To **29 RISTLAND COURT PONDERS END ENFIELD MIDDX**
Phone 01-805 8054-EN3 4BJ



CLASSIFIED ADVERTISING RATES:

Line by line: 30p per word, minimum 20 words.

Semi-display: £7 per single column cent metre minimum length 2 cm (Please supply A/W as PMT Or supply rough setting instructions.)

THESE RATES DO NOT INCLUDE VAT

Conditions. All copy for Classified section must be pre paid. Copy date 7 days before publication

IF YOU WISH TO DISCUSS YOUR AD PLEASE RING Jon Beales 01-437 4343

Here's my classified ad.

(Please write your copy in capital letters on the lines below.)

		Please continue on a separate sheet of paper	

I make this ______ words at ______ per word so I owe you £ ______

Name ______

Address ______

Telephone ______

Please cut out and send this form to: Classified Department *Popular Computing Weekly* 12-13 Little Newport Street London WC2H 7PP

★ FREE SOFTWARE ★ FREE 15 MONTHS MEMBERSHIP ★

A great new home computer club now under way!! Savings on software and books from 25% & upto 40% off R R P, originals only. Your never committed to any makes for software or books nor are you committed to buy. Every two months you get a software update, free software and game playing tips. Savings on hardware from 15% end up to 30% off R R P. not just joysticks but a wide range of peripherels for your computer. Normally membership is £15 for 12 months but for a limited period only membership is FREE for 15 months when you buy just one of the programs R.R.P £7 95 or more, choose one of the emphasized programs as your free bi-monthly software. Our club is designed for all Amstred CPC range, ZX Spectrum 48K & +, Commodore 64 & 128

AMSTRAD

		ROCK & WRESTLE	£ 8.95	LORD OF THE RINGS	£15.95
A.C.E.	£10.95	SPITFIRE 40 (D)	£ 9.95	THEY SOLD A MILLION (D)	£ 9.95
ELITE (D)	£14.95	DOWN JACK (D)	£ 8.95	THE FOURTH PROTOCOL	£12.95
SKYFOX	£ 9.95	YIE AR KUNG FU	£ 8.95	I UNDERSAND THE ADVENTURE	£ 9.95
MAX HEADROOM	£ 9.95	UNDERWURLDE	£ 9.95	THE WAY OF THE EXPLODING FIST	£ 8.95
STRANGELOOP	£ 9.95	FIGHTING WARRIOR	£ 8.95		
WINTER GAMES	£ 9.95	IMPOSSIBLE MISSION	£ 9.95		
FAIRLIGHT	£ 8.95	WORM IN PARADISE	£ 8.95	RESCUE ON FRACTALUS	£ 9.95
SUPERBOWL	£ 9.95	MONTY ON THE RUN	£ 9.95	FRANK BRUNO'S BOXING	£ 8.95
DAMBUSTERS	£ 9.95	BACK TO THE FUTURE	£ 9.95	FIGHTER PILOT (D)	£ 9.95
POLE POSITION	£ 8.95	STRIKE FORCE HARRIER (D)	£ 9.95	DOOM OF THE RINGS	£ 9.95

One of these Mastertronic games if FREE when you buy one of the above programs.

*** FINDERS KEEPERS * CAVES OF DOOM ***
*** SOUL OF A ROBOT * FORMULA ONE SIMULATOR ***

AMX MOUSE DESIGNER	£ 54.45	AMSTRAD DMP 2000 PRINTER	£134.00
BROTHER HR5 PRINTER	£ 84.05	AMSTRAD FD-1 DISK DRIVE	£ 84.95
EPSON RX 80 PRINTER	£212.50	AMSTRAD DD-1 DISK DRIVE	£154.95
JUKI 6100 PRINTER	£338.95	AMSTRAD RS 232 INTERFACE	£ 38.95
MICROVITEC CUB 1451	£250.00	UK TRONICS 64K EXPANSION	£ 39.95

SPECTRUM

		THE GOONIES	£ 8.95	LORD OF THE RINGS	£15.95
A.C.E	£10.95	TOMAHAWK	£ 9.95	BACK TO THE FUTURE	£ 9.95
ELITE	£14.95	WINTER GAMES	£ 7.95	BATTLE OF THE PLANETS	£ 9.95
TAU CETI	£ 9.95	ENIGMA FORCE	£ 9.95	THEY SOLD A MILLION	£ 9.95
ARENA	£ 9.95	ARC OF YESOD	£ 8.95	THE FOURTH PROTOCOL	£12.95
DAMBUSTERS	£ 8.95	IMPOSSIBLE MISSION	£ 9.95	SECRET DIARY OF A.MOLE	£ 9.95
WATERLOO	£ 9.95	SURF CHAMP	£11.95	THE WORM IN PARADISE	£ 9.95
CYBERUN	£ 9.95	DESERT RATS	£ 9.95	ARCADE HALL OF FAME	£ 9.95
FAIRLIGHT	£ 9.95	DESERT FOX	£ 7.95	WAY OF THE EXPLODING FIST	£ 8.95
SUPERBOWL	£ 9.95	SPITFIRE 40	£ 9.95		
AUSTERLITZ	£ 9.95	THEIR FINEST HOUR	£ 9.95	GLADIATOR	£ 8.95

One of these Mastertronic games if FREE when you buy one of the above programs.

*** DEVILS CROWN * CAVES OF DOOM ***
*** ONE MAN & HIS DROID * FORMULA ONE SIMULATOR * SOUL OF A ROBOT ***

AMX MOUSE DESIGNER	£ 54.95	OPUS DISCOVERY 1	£194.95
BROTHER HR5 PRINTER	£ 84.95	OPUS DISCOVERY 2	£279.95
EPSON RX 80 PRINTER	£212.50	SAGA ELITE KEYBOARD	£ 59.45
JUKI 6100 PRINTER	£339.95	SAGA 2 + KEYBOARD	£ 84.95
MICROVITEC CUB 1451	£250.00	SINCLAIR EXPANSION PACK	£ 84.95

COMMODORE 64 & 128

ELITE (D)	£14.95	TIME TUNNELL(D)	£ 9.95	LORD OF THE RINGS(D)	£19.95
A C E	£10.95	ARC OF YESOD	£ 9.95	FRANK BRUNO S B (D)	£ 8.95
SKYFOX (D)	£ 9.95	ENIGMA FORCE(D)	£ 9.95	ROCK & WRESTLE(D)	£ 9.95
HARD BALL (D)	£ 9.95	BACK TO THE FUTURE	£ 9.95	THE EIDOLON(D)	£ 9.95
REVS (D)	£14.95	PARADROID	£ 7.95	B. McGUIGAN S WCB(D)	£ 9.95
URIDIUM (D)	£ 8.95	QUAKE MINUS 1	£ 9.95	WINTER GAMES(D)	£ 9.95
NIGHTSHADE	£ 9.95	DEATHWAKE	£ 7.95	KUNG FU MASTER(D)	£ 9.95
SPITFIRE (D)	£ 9.95	NODES OF YESOD	£ 9.95	THE WOF EXP ING F (D)	£ 9.95
BOUNCERS	£ 9.95	MAX HEADROOM	£ 9.95	FIGHTER PILOT(D)	£ 9.95
MERCENDARY(D)	£ 9.95	YIE AR KUNG FU	£ 8.95	CRITICAL MASS	£ 8.95

One of these Mastertronic games is FREE when you buy one of the above programs

KANE * LAST V8
ONE MAN & HIS DROID * ACTION BIKER * KIK START

PHONE FOR SPECIAL COMPUTER PRICES

PHONE FOR SPECIAL COMPUTER PRICES

Who said anything about you don t have a choice in software?

BUSINESS * UTILITIES * EDUCATION * ARCADE
ADVENTURE * ARCADE ADVENTURE * SIMULATION * STRATEGY

These are just a few hardware prices which are exclusive to our club members
New members please add £6 on hardware prices over £100, £5 under £100

COMMODORE DPS 1101	£199.99	COMMODORE 1541 + SEIKO WATCH	£159.95
COMMODORE 1570	£169.25	COMMODORE MPS 801 + SEIKO WATCH	£189.99
COMMODORE 1900C	£264.95	COMMODORE MPS 1000 PRINTER	£212.90
COMMODORE 1900M	£ 84.95	STAG SG 10C PRINTER	£214.95
COMMODORE 1701	£199.95	BROTHER HR5 PRINTER	£ 84.95

Our complete price list is much bigger than this, for any inquiries that you may have **please ring 0473 218229 MON-FRI 9am-4pm,** (it's much quicker than writing)

Please make cheques/postal orders payable to **T. L. DAVIES.**

All priced items includs postage & packing except hardware items below £100, also are correct when going to press. **(D)** means the program is also available on disk

**Post to: THE T.L. DAVIES HOME COMPUTER CLUB,
286 WOODBRIDGE ROAD,
IPSWICH,
SUFFOLK, IP4 2QU**

SERVICES

ATARI IN MANCHESTER

THE BEST SELECTION OF SOFTWARE IN THE MANCHESTER AREA! WE SPECIALISE ONLY IN ATARI IN INCLUDING 2600 (VCS) VIDEO GAMES. MAIL ORDER WITH PLEASURE; SAE FOR LISTS (STATE INTERESTS)

CASSETTE ● DISK ● ROM ● JOYSTICKS ● BOOKS ● MAGS ● ETC

APRIL-MAY RELEASES RELEASES INCLUDE:-

SPY v SPY II ●
BOULDERDASH II ● SCREAMING WINGS ●
WINTER OLYMPICS ● LAST V8 ●
PANIC EXPRESS ● TECHNICOLOR DREAM ●
TAIL OF BETA LYRE ●

NOTE NEW TELEPHONE NUMBER 061-834 4941

WE ARE HERE

ATARI WORLD
15 FENNEL STREET
MANCHESTER M4 3DU
Tel 061-834 4941
OPEN MON-FRI 10am-6pm.
SAT 10am-5.30pm

COMPUTER HIRE

TO HIRE A COMPUTER AND OR PERIPHERALS BY THE WEEK OR MONTH RING 01-607 0157 or 01-997 6457

WE SPECIALISE IN BBC AND ALSO HAVE A RANGE OF AMSTRAD COMPUTERS FOR HIRE.

COMPUTER HIRE SERVICES 294A CALEDONIAN RD, LONDON N1 1BA.

BLANK CASSETTES

WITH LIBRARY CASES

	C10	C15	C20	C30
10	3.80	4.00	4.10	4.00
20	7.00	7.20	7.40	8.20
50	16.00	16.20	15.90	17.30
100	27.00	28.00	28.10	30.00

Fully inclusive (COD 50p extra)

5¼" DS/DD DISKS

10 for £12.00 inc plastic case

3½" DISKS

135 TPI
10 SS/DD £28.00
10 DS/DD £30.00
Guaranteed. Fully inclusive
Postage/Packing etc

UK HOME COMPUTERS, 82 CHURCHWARD AVE, SWINDON, WILTS SN2 1NH

COMPUTER REPAIRS

ALL MACHINES DESPATCHED WITHIN 72 HOURS OF RECEIPT

For example:

Spectrum Plus	£17.00
16-48 RAM Upgrade	£25.00
ZX81	£12.00
Interface I	£18.00
ZX Microdrive	£18.00
BBC B	£26.00

(All prices include, parts, VAT labour return postage insured, and full warranty)

For a fast and reliable service send machine brief description of fault and cheque or PO for relevant amount to the experts

CAPITAL COMPUTER SERVICES
Dept P
Unit K2, Cardiff Workshops
Lewis Road, East Moors
Cardiff CF1 5EG
Tel: Cardiff (0222) 461801

We also service Acorn, Dragon, Commodore, Lynx and Oric systems. Please telephone for a quote

PROFESSIONAL DUPLICATION

SIMON STABLE PROMOTIONS CASSETTE DUPLICATION

Computer Repair Centre

Have you got problems with your computer? Then call us for
Commodore, BBC
Spectrum, Dragon
Mail order or call in
Enfield Communications
135 High Street, Ponders End, Middx
Tel: 01 805 7772

UNREPEATABLE COMPUTER BARGAINS

AMSTRAD DMP 2000	£129
COMMODORE 803 printer	£99.99
DPS 1101 Daisywheel printer	£176
COMMODORE green screen monitor	£89.00
1570 DISC DRIVE	£169
COMMODORE 128 computer + 1570 disk drive	£389
COMMODORE 128 computer	£220
COMMODORE 128D	£480
AMSTRAD PCW8256 Personal computer & word processing system	£429

(ALL PRICES INC VAT AND DELIVERY)

Add £5 for Securicor delivery

8256 DISCOUNT SOFTWARE, RING FOR SPECIAL PRICES

cheques payable to

Matrix Trading

Tempo House, 15 Falcon Road, London SW11
Telephone 01-223 7662 (office only) 10am-12.30pm, 2.30pm-5.00pm

RECRUITMENT

ARE YOU AT SCHOOL?
Are you dead keen on computer games?
Do you want to make some money?

If you say yes to all three, write to us with a stamped addressed envelope and we'll fill you in.

CRL GROUP plc
DREAMSELLERS
CRL House
9 Kings Yard
Carpenters Rd
London E15

4PL2

DOMARK

Require a

PROGRAMMER

experienced in Z80 code on the **AMSTRAD** to work in-house
Previous experience essential
Write or phone Richard on
01 947 5688

17PC10

AMSTRAD

AMSTRAD CPC464 (colour monitor) plus joystick plus £200 of software (35 cassettes including games educational business and utilities) all for £200 Also DK tronics 64K rampack £30 (South Manchester) 061-439 4681

BONZO MEDDLER AMSTRAD CPC Series
[illegible]
NEMESIS (PCW)
10 Carlow Road Ringstead Kettering Northants NN14 4DW
[illegible]

FOR SALE

WANTED print head for Seikosha AP 100 printer or equivalent else Amstrad software to swap or sell disc or tape

SPECTRUM 48K £50 Interface 1 microdrive 12 cartridges boxed £80 Kempston E printer interface £30 ZX printer plus 4 rolls £10 recorder £15 tape books whole lot £194 Tel 0602 840663

SPECTRUM Fuller keyboard cassette recorder joystick interface joystick magazines books, over 40 top original programs + machine code packages worth over £690 sell for £120 ono Tel Nigel 01 772 3419

DEANS printer tables book all sizes from £35 Phone 0494-81 3347 5478

MAKE money with your microcomputer Turn your micro into a money making machine This is the only book which explains clearly exactly how you can make real money by putting your micro to work Send £9 50 today or 17p stamp for details Limited offer Proteus Computing Ltd PO Box 19 Stone Staffs ST15 0SL

AMSTRAD colour CPC 6128 as new 5 months old joystick JVC data cassette micro 1SBE manuals software sys terms discs £500 Tel 594 0683 evenings

THE Artist 48K corrected to run on Spectrum 128K Pokes supplied for 50p + SaE From D Poole 31 High Flash Stevenage Herts SG1 1JG

20 character sets for your Spectrum programs + free 64 chr print only £3 K Maddocks 5 Finn Dale Rainford Merseyside WA11 8DP

YAMAHA CX5M large KBD voicing composing cart. 432 voices tape plus tunes Demo mint boxed £400 ono Tel 0633 622171

NEW simple word-processor for Beeb B On-screen underline italics Scriptwriting mode Details – Scarlett Software Stable Cottage Berry Hill Taplow Maidenhead Berks

SORD M5 Computers and software at giveaway prices Stocks limited SAE for lists or telephone 0279 47036 Playbar Projects 133 Hookfield Harlow Essex CM18 6QL

MAKE MONEY sell or exchange your used software Send stamp for details K & M Computer Club 40 Fairstead Birch Green Skelmersdale WN8 6RD

SPECTRUM 48K Saga keyboard I/F 1 dual J/S I/F microdrives 7S cartridges games, utilities books Alphacom printer with paper current cost £850 + only £425 ono 021-358 7572 7 10 30 pm

SPECTRUM + joystick interface books magazines £200's worth of software £100 ono Telephone Barnsley 291248 after 6pm

CRICKET average up to 60 players batting bowling, catches auto totals and average sorting with qualification and archive facility Spectrum £8 PCW 8256 Amstrad £11 Soon available BBC and Commodore Details from Spartans Sports Association 29 Feltham Avenue East Molesey KT8 9BJ

GAMES-PLAYERS! Pokes for 65 top Spectrum games only £2 50 on tape S gnasmith 9 Pickeale Rainford, Merseyside WA11 8DP

AT last TV Pursuit for the 48K Spectrum over 1,200 questions cheque or P/O for £5 to E Lewis, 36 Surrey Tower Graveney Grove London SE20

PROGRAMMERS wanted Competent or trainee 6502 machine code programmers required Good pay – excellent opportunities interested? Ring Dreams on 01-670 6361

QL with Disk I/F parallel printer I/F J/S converter books technical manual 84 cartridges languages utilities games cost over £800 now only £325 ono 021-358 7572 7 10 pm

OSBORNE 64K dual drive built in monitor Wordstar SuperCalc M Basic C Basic personal Pearl II Start £550 ono Phone 021 358 7572 7 30 pm-10 30 pm

WANTED for QL (DS/DD) drives with 512K expansion ram Recent unit only Technical book W E Micro Systems good priced offers 0962 675709

COMMODORE Plus 4 2541 disk drive 803 printer data recorder Philips green monitor tote sales gripes £615 Tel 041 221 8297

SPECTRUM OWNERS send your own uncopywrited M code basic program(s) with £4 You receive C60 compilation of top programs received users from last and friendly service send now for cassette and info or phone for details To 22 Inchwood Court Westfield Cumbernauld.

BBC B 0a512 modem plus 22 Rom plus tape over £200 of software 01 328 4181

TWO ZX81 one ZX80 complete with all leads and manuals one 16k rampack one 32k rampack various software and books £100 or nearest offer Tel 010-44 5254 12281

CBM64 original tapes disks games utilities etc for sale Cheap! Wanted magic voice cartridge and cheap video digitiser wanted urgently write to John Keogh 30 Highwood Avenue Finchley London N12 8QP

WANTED Software for Spectrum 48K and Commodore 64 Send list for a quote All tapes must be originals. J Quine 3 Oxford Close Hensingham Whitehaven Cumbria.

DRAGON 32 A selection of the latest games + tape recorder + leads + 2 joysticks An excellent condition Boxed Lots of pokes manuals £80 Phone Ashford Middlesex 54888

AMSTRAD tape to disk transfers Most programs catered for Send only £1 50 per program + original + blank disk to M J Dyas, 84 Durham Court Ellesmere Port, South Wirral L65 4ED for fast return by recorded post

ATARI 130XE in need of slight repair + 1050 disc drive + joystick + games £210 Tel (0602) 782721

BBC B ADFS 640K—Drive Rom/Ram Extension Board joystick printer Wordwise Replay System over £500 top quality software Rexel storage case with over 20-discs many books + mags Sell for only £680 Tel 021 440 6383

AMSTRAD CPC464 with colour monitor Lots of new software £290 ono Modulator for 464 £10 Disk drive 1 with interface — CPM + 8 months guarantee £125 Phone ANDZ (051) 430 7408 evenings/weekends

ATARI 800XL + Disc Drive + 1600's software + Touch tablet Worth £370 will sell £230 ono All new from their Christmas Games include Spy vs Spy Ultima II Dino Zone + loads more Ring Clitheroe 23121 Ask for Reuben after 4pm

AMX Mouse (Amstrad) £80 Corkit Modem £30 DR Pascal £40 Vic 1520 Printer Plotter £50 Casio Graphic Calculator FX-7000G £56 All as new and boxed

PRINTER Alphacom 81 (thermal) with interface for 64 or Vic 20 and five rolls of paper £50 Telephone John Ryden 0442 227056 will deliver 20 miles around Cardiff also buyer collects

WANTED A Jupiter Ace (no PSU/manual) I don't care what state (old keyboards ok) just tell me what you want for it. J Kennedy 32 Bayview Road Bangor Co Down N Ireland BT19 2AR

ATARI 130XE 128K computer tape recorder joystick Trak Ball nine games book on machine code all boxes leads manuals etc four months old bargain at only £164 .95 Tel Harrogate 886327

IT'S taken me two months to accurately map out CZ envelopes You might find the results useful Call (0602) 324166 for further information ask for Julian

AMSTRAD 6128 with colour monitor only three months old with dust covers plus over £50 of disk software plus blank discs and Amstrad system disks original packaging £350 Horley 771876

ATARI US doubler + Spartados £80 Flight Simulator II disk £25 Sam Speech Synth £30 Diskey Disk utility programme £15 All vgc Telephone after 6pm 01 540 9537

ATARI 400 recorder disk drive printer touch tablet, well over 100 games including latest releases on tape ROMS disks plus many utilities Atari writer SAM etc £450 Basildon 0268 26834

CBM64 CZN Prism 2000 modem with comms software m/c language tutor and more software Phone 01-892 6712 evenings after 8 00 and anytime weekends ask for Colin or leave message

OHIO C1E super board metal case 16K RAM Cegmon basic 4 and 5 ROMS 48 x 32 display 5 Amp PSU manuals software A real enthusiasts machine for £49 Tel Atherton (0942) 895642 (after 6pm)

SEIKOSHA GP80A dot matrix printer Centronics parallel with 1500 sheets Fanfold paper and ribbons why buy a thermal? Get tele print for only £49 Tel Atherton (0942) 895642 (after 6pm)

AMSTRAD CPC 6128 colour 6 months old 6 disks joystick light pen firmware manuals basic tutorial £130 worth games and utilities total cost was £800 only £450 ono wanted Tel 0705 831713 6pm-8pm

MACINTOSH software microsoft Multiplan and chart £75 each also MacDraw £70 surplus personal software including documentation hardly used Tel 01 948 7800

SPECTRUM modem VTX 5000 complete with in-built software connector Prestel directory and application form Still boxed, perfect condition £36 ono Phone 061 334 7884

AMSTRAD CPC464 colour monitor excellent condition complete with £318 worth top software including Tau-Ceti TLL Make Day *Highway Encounter* Beaumont's World and many others £295 ono Telephone 0630 57128 will part

ATARI 1040 STF 1MB RAM monitor mouse disk drive software etc Brand new unwanted gift Ring with sensible offer 01-228 0374

AMSTRAD DMP 2000 printer only two months old perfect condition with manual and connecting lead in original packaging plus dust cover and Fanfold paper £140 Tel Horley 771876 after 5pm

ATARI SM124 monochrome monitor for ST New unused cost £150 sell for £100 Phone Mo on Bloxwich (0922) 402038

AMSTRAD software all half price original Knight Lore Code name Mat Hobbit, Colossal Toolbox, Mini-Office Return to Time etc Lots more Phone weekends Alex 021-327 5048

TEXAS TI99/4A Mini Memory £45 Extended Basic £40 Voodoo Castle Mission Impossible Early Reading Number Magic £3 each Tipser Joytalk RS232 interface £35 32 Glenshesk Park Dunmurry BT17 8BA 0232 623001

IS your Beeb in a very bad bad repair able collection? Want to sell it? Tel Luton (0582) 424025 Also for sale Vic 20 + 32K tape lots of games leads etc Accent £280 ono

CBM 64 C2N 1701 colour monitor 2 joysticks worth £500 plus £250 worth of software all for sale at £200 ono Will split Phone Huspec 408 ask for Mark

COMMODORE 64 C2N cassette unit Simons basic Uridium music system Pitstop II International Soccer Last V8 and many other games all for £170 ono Tel Basildon (0866) 26158

AMSTRAD software games utilities from 75p plus Amstrad chart. Program Guide Back up Tel 0709 548055 or send SaE for lists to Phil Maxfield 40 The Brow Brecks, Rotherham S65 3HP

AMSTRAD PCW 8512 personal computer also word processor with green screen printer and paper drive 3 weeks old under guarantee £500 Tel 0983 2846

SPECTRUM dual function joystick interface Kempston/cursor and Quickshot joystick unused £13. J Willis 48 Park way Chellaston Derby (0332) 703892

WANTED print head for Seikosha AP-100 printer or equivalent else Amstrad software to swap or sell disc or tape

FOR COST–EFFECTIVE CLASSIFIED ADVERTISING CALL JON BEALES ON 01-437 4343

SUFFOLK

FOR MSX, SPECTRUM, COMMODORE, AMSTRAD

SMS
Sudbury Micro Systems

84 NORTH STREET
SUDBURY
TEL: SUDBURY 311839

STAFFORDSHIRE

MICROTRONICS
21a MARKET STREET
TAMWORTH, STAFFS
Tel: (0827) 51480

ROME SOFT COMPUTING
1st FLOOR
81A BOLEBRIDGE ST
TAMWORTH
STAFFS
(0827) 83540

S. WALES

MAPPLE MICRO ASSOCIATES
FREEPOST
PO BOX 17
CWMBRAN
GWENT NP44 3YT

YORKSHIRE

MICRO BYTE SOFTWARE SHOP
55 COUNTY ARCADE
LEEDS
FULL RANGE OF TOP QUALITY SOFTWARE,
PHONE FOR PRICES
Tel: (0532) 450 529

YORK COMPUTER CENTRE
7 STONEGATE ARCADE
YORK
Tel. (0904) 641862

MICRO BYTE SOFTWARE SHOP
19A LOWER WARREN CENTRE
LEEDS
Tel: (0924) 376656
FULL RANGE OF
TOP QUALITY SOFTWARE
PHONE FOR PRICES

FOR POWERFUL DEALER ADVERTISING CALL JON BEALES on 01-437 4343

WARWICKSHIRE

FAST FORWARD COMPUTER STORE
29 SMITH STREET
WARWICK
Tel: (0926) 492004

NORFOLK

THETFORD MICROS
SPECIALISTS –
COMPUTER REPAIRS
21 GUILDHALL STREET
THETFORD
NORFOLK
(0842) 61645

TELEX YOUR CLASSIFIED COPY TO: 296275 SUNRGY

Software PLUS

The largest independent retailer of software and accessories in the South East

BASILDON
Liberty Shopping Hall
Telephone Basildon 27922

ROMFORD
72 North Street
Telephone Romford 65271

IPSWICH
22 St. Matthews Street
Telephone Ipswich 54774

SOUTHEND
336 Chartwell Square
Telephone Southend 610784

New Releases

Graham Taylor looks through this week's new arrivals

Pick of the week

CAD PAK

Program *Cad Pak* **Type** Utility **Machine** QL **Price** £14 95 **Supplier** Datalink Systems Glangors Ynyslas, Dyfed SY24 5JU

Don t be confused Despite the title *Cad Pak* is really another graphics package for the QL The main difference between it and the Sinclair official package (as was) is that it has marginally fewer features, but is easier to use and half the price

Graphics programs are one of the few areas where icons actually have some value, partly because of the obvious visual correlation of expressing a graphic idea via a graphic comand *Cad Pak* has just about everything you could need instant circles squares multi sided figures cut and paste text spray paint various kinds of shading and fill

One nice touch is a little box on the bottom left of the screen which shows you what you will get if you execute a particular command So easy is the package to use that there is virtually no need for a manual – just as well really since there isn t one (I could have done with a couple of pages worth, though) An excellent low priced alternative to the Sinclair pack

Amstrad

Program *Redhawk* **Type** Arcade **Machine** Amstrad **Price** £8 95 **Supplier** Melbourne House 60 High Street Hampton Wick Kingston Upon Thames Surrey KT1 4DB

Program *Rock 'n' Wrestle* **Type** Arcade **Machine** Amstrad **Price** £8 95 **Supplier** Melbourne House as above

BBC

Program *À Vous la France* **Type** Educational **Machine** BBC **Price** £8 95 **Supplier** BBC Soft 35 Marylebone High Street London W1A 4AA

Program *Deutsch Direkt* **Type** Educational **Machine** BBC **Price** £22 95 **Supplier** BBC Soft as above

Commodore

Program *Hectic* **Type** Arcade **Machine** Commodore 16 **Price** £1 99 **Supplier** Mastertronic 6-10 Paul Street London EC2A 4JH

Program *Dr Who and the Mines of Terror* **Type** Arcade **Machine** Commodore 64 **Price** £11 95 **Supplier** Micro Power Northwood House Northwood House North Street Leeds LS7 2AA

On the BBC this program was I'll admit a bit special in a market that didn t see much by way of mega multi screen arcade/adventures

On the Commodore 64 it s another story At £11 95 that puts *Dr Who* in the mega league and it isn't that.

It isn t quite just a bog standard collect objects use them jump affair such as you might find on countless £1 99 Mastertronic games but the additions don t, I feel add up to all that much The Doctor has to find and disable a nasty time device being built by the Master He is aided not only by his wits but also a cat called Splinx which you can control

Solving the game is partly a matter of figuring out what to do with what object and partly a matter of the creative use of Splinx A seperate menu is used to issue instructions like follow go to a marker (which the Doctor can place in strategic locations) and pick up an object Combinations of all three are required to deal with some problems

Quite ingenious reasonable to look at moderately addictive slightly original too expensive

Program *Kik Start* **Type** Arcade **Machine** Commodore 16 **Price** £1 99 **Supplier** Mastertronic as above

Program *Return of Rockman* **Type** Arcade **Machine** Commodore 16 **Price** £1 99 **Supplier** Mastertronic as above

Program *Pharoahs Tomb* **Type** Arcade **Machine** Commodore 16 **Price** £4 95 **Supplier** Magnificent 7, 21 Upfield Horley, Surrey RH6 7JY

Program *Space Pilot* **Type** Arcade **Machine** Commodore 16 **Price** £1 99 **Supplier** Mastertronic as above

Program *Bump Set Spike* **Type** Strategy **Machine** Commodore 64 **Price** £1 99 **Supplier** Mastertronic as above

Program *Formula 1 Simulation* **Type** Simulation **Machine** Commodore 64 **Price** £2 99 **Supplier** Mastertronic as above

Program *Kaiser* **Type** Strategy **Machine** Commodore 64 **Price** £7 95 **Supplier** Ariolasoft as above

Program *Knights of the Desert* **Type** Strategy **Machine** Commodore 64 **Price** £9 95 **Supplier** US Gold, Unit 10 Parkway Industrial Estate Heneage Street, Birmingham

Program *Golf Construction Set* **Type** Strategy **Machine** Commodore 64 **Price** £12 95 **Supplier** Ariolasoft 68 Long Acre Covent Garden, London WC2



Program *Redhawk* **Type** Arcade **Machine** Commodore 64 **Price** £8 95 **Supplier** Melbourne House as above

Program *Starbound* **Type** Arcade **Machine** Commodore 16 4 **Price** £2 95 **Supplier** CSD Thomson House 296 Farnborough Road Farnborough Hampshire GU14 7NF

Program *War Play* **Type** Strategy **Machine** Commodore 64 **Price** £7 95 **Supplier** Anco 85 Tile Film Lane Bexley Kent

Program *Tournament Snooker* **Type** Strategy **Machine** Commodore 64 **Price** £7 95 **Supplier** Magnificent 7 as above



Plus 4

Program *Indoor Soccer* **Type** Strategy **Machine** Plus 4 **Price** £4 95 **Supplier** Magnificent 7 as above

QL

Program *Gobble Gobble* **Type** Arcade **Machine** QL **Price** £9 95 **Supplier** Eiden 45 Bancroft Road Widnes Cheshire WA8

Program *Gwendoline* **Type** Arcade **Micro** QL **Price** £14 95 **Supplier** Labochrome, Rue de Fragnee, 173 4000 Liege Belgium

Gwendoline is a QL game from Belgium and in so far as it looks a bit like a slightly dated Spectrum title it s pretty good by QL standards

Absolutely standard collect and dodge – you are a rather hapless looking knight and there is the inevitable princess to be rescued

The screens consist of castle rooms dungeons and towers and the whole thing is littered with odd objects that do wacky things like make your knight run backwards, etc etc

Not actually a bad game, just a little tired looking *Gwendoline* may be worth all the trouble of ordering from Belgium if you absolutely love *Miner*-style games
OLR

Spectrum

Program *Indoor Soccer* **Type** Strategy **Machine** Spectrum **Price** £4 95 **Supplier** Magnificent 7 as above

Program *Redhawk* **Type** Arcade **Machine** Spectrum **Price** £8 95 **Supplier** Melbourne House as above

Program *Delta Wing* **Type** Arcade **Machine** Spectrum **Price** £2 99 **Supplier** Mastertronic, 6-10 Paul Street, London EC2A 4JH

Maybe we ve just been saturated with flying simulation/dog fight games, but it s a little difficult to get very enthusiastic about *Delta Wing* It s really just a basic fly the plane shoot up the bases and enemy fighters affair Ground is a slab of green sky a slab of blue All other graphics aside from your cockpit (which is rather neat – hand moves on joystick etc) are black line only affairs OK but no more

Flying games all come somewhere on a scale of pure simulation (learning to fly the plane is all) to shoot-em-up (blasting the baddies is all) This is about 40% fly and 60% blast away

I should say that *Delta Wing* is only £2 99 which makes it pretty cheap compared to the competition but unless you don t yet have one of the countless other similar programs there is no great reason to buy this one

There is one point of relevance to game players who have a) interface 1 and b) a friend with a Spectrum On the other side of the tape is a multi-player version of the game where you play against one another as though piloting two separate aircraft ie, each player appears on the other s cockpit screen as the enemy

That may prove to be a different game entirely and lots more fun Under those circumstances I'd say buy buy buy

Program *Bounder* **Type** Arcade **Machine** Spectrum **Price** £7 95 **Supplier** Gremlin Graphics Alpha House 10 Carver St Sheffield S1 4FS

Bounder was originally released on the Commodore 64 where it achieved quasi cult status Now the game has been converted to the Spectrum complete with full monocolour screen display

The entire justification for the game s existence is its originality it scores at least 90% in this crucial area where other programs barely notch up a single bonus point The presentation is rather neat as well

The game works like this Imagine you are looking down on a ball hovering over a scrolling landscape you see the ball as getting bigger when it bounces towards you and smaller when it hits the ground Your task is to control the ball bouncing it only on safe areas of ground avoiding assorted nasty things and landing on various bonus squares that offer treats like extra lives

The object of the game is simply to get your ball into the goal but this requires not only very careful control of your bounce but also making a map – in some places there is only one route forward *Bounder* looks nice and is very original I found it frustrating rather than addictive, but the determined may well love it

Program *Power Print II* **Type** Utility **Micro** Spectrum **Price** £7 95 **Supplier** Buttercraft 14 Western Avenue Riddlesden Keighley Yorks

Power Print II is an interesting utility from Buttercraft It allows you to design various sorts of banners and posters using text just about as large as you want The greatest virtue of the system is its extreme ease of use Write your text draw a window to represent the size you want the text to be and then choose your text style – a mixture of any one of five fonts and 64 overlays (different kinds of fill basically) – then print it

I have to say that I found a good many of the combinations including many of those illustrated in the manual, rather ugly but there is enough choice to find something you fancy

As is the program is designed to work with dodgy old ZX style printers but there are some fairly comprehensive instructions on using the system with most of the common interfaces

Program *Questprobe* **Type** Adventure **Micro** Spectrum **Price** £9 95 **Supplier** All American Adventures Unit 10 Parkway Industrial Estate, Heneage St Birmingham B7 4LY

When Adventure International first started to release adventures based on the Marvel Comic superheroes they received mixed reviews for being graphically quite neat but lacking really inventive ideas in the design

Now US Gold under the All American Adventures banner has taken on the marvel series Next up is *Questprobe* featuring the Human Torch and the Thing and there are reasons to be more optimistic about its long term addictiveness

You play not one but two superheroes The Torch and the Thing and can change which viewpoint you are playing from at any time Your task is to rescue Alicia Masters from the grip of Dr Doom who is not a nice guy Among other wacky people you might meet are the Circus of Death (a laugh a minute) All locations are illustrated with some pleasing if not awe-inspiring graphics

Working with two characters certainly adds something to the game and I was reasonably inclined to keep playing even though it took me half an hour to figure out the first thing to

Program *Trio* **Type** Arcade **Machine** Spectrum **Price** £2 95 **Supplier** CSD as above

Charts

Top Twenty

1	(4)	V *(Spectrum/C64)*	**Ocean**
2	(5)	Bomb Jack *(Spectrum)*	**Elite**
3	(2)	Green Beret *(Spectrum)*	**Imagine**
4	(3)	Way of the Tiger *(Spectrum/Amstrad/MSX)*	**Gremlin**
5	(6)	Commando *(Spectrum/C64/BBC/C16)*	**Elite**
6	(8)	Last V8 *(C64/Amstrad/Atari)*	**Mastertronic**
7	(9)	Formula One Simulator *(Various)*	**Mastertronic**
8	(14)	One Man And His Droid *(Various)*	**Mastertronic**
9	(16)	Finders Keepers *(Various)*	**Mastertronic**
10	(7)	Computer Hits 10 (2) *(Various)*	**Beau Jolly**
11	(15)	Action Biker *(Spectrum/C64/C16/Atari)*	**Mastertronic**
12	(17)	BMX Racers *(Spectrum/C64/Amstrad/C16)*	**Mastertronic**
13	(13)	F A Cup Football *(Spectrum/C64/Amstrad)*	**Virgin**
14	(–)	Sport Of Kings *(Spectrum)*	**Mastertronic**
15	(–)	Rockman *(Spectrum, C64, Vic, C16)*	**Mastertronic**
16	(18)	Mr Puniverse *(C16)*	**Mastertronic**
17	(3)	Bomb Jack *(Spectrum)*	**Elite**
18	(–)	Starstrike 2 *(Spectrum)*	**Realtime**
19	(–)	Off The Hook *(Spectrum, C64)*	**Off The Hook**
20	(11)	Yie Ar Kung Fu *(Various)*	**Imagine**

V – up to no 1

Off the Hook – new entry

Top Tens

All figures compiled by Gallup/Microscope

Amstrad

1	(4)	Into Oblivion	(Mastertronic)
2	(–)	Caves Of Doom	(Mastertronic)
3	(3)	Last V8	(Mastertronic)
4	(–)	One Man & His Droid	(Mastertrc)
5	(6)	Finders Keepers	(Mastertronic)
6	(2)	Spindizzy	(Electric Dreams)
7	(1)	Way Of The Tiger	(Gremlin)
8	(–)	Get Dexter	(PSS)
9	(7)	Comp Hits 10 (2)	(Beau Jolly)
10	(8)	Formula 1 Sim	(Mastertronic)

Superbowl – going down

Commodore 64

1	(–)	Bomb Jack	(Elite)
2	(2)	V	(Ocean)
3	(3)	Superbowl	(Ocean)
4	(1)	Uridium	(Hewson Consultants)
5	(8)	Kane	(Mastertronic)
6	(–)	Off The Hook	(Off The Hook)
7	(–)	Phantom of the Asteroids	(Mstrc)
8	(–)	Wing Commander	(Mastertronic)
9	(–)	Last V8	(Mastertronic)
10	(9)	Zapp Sizzlers	(Gremlin)

Atari

1	(1)	Last V8	(Mastertronic)
2	(2)	Action Biker	(Mastertronic)
3	(3)	One Man & His Droid	(Mastertrc)
4	(8)	Chimera	(Firebird)
5	(–)	Arcade Classics	(Gatesoft)
6	(5)	Fighter Pilot	(Digital Integration)
7	(6)	Spy v Spy 2	(Databyte)
8	(9)	Strip Poker	(Artwork/US Gold)
9	(–)	Asylum	(US Gold)
10	(–)	Smash Hits 4	(English)

BBC

1	(1)	Commando	(Elite)
2	(3)	Winter Olympics	(Tynesoft)
3	(3)	Karate Combat	(Superior)
4	(4)	Yie Ar Kung Fu	(Imagine)
5	(9)	Strike Force Harrier	(Mirrorsoft)
6	(9)	Citadel	(Superior)
7	(–)	Speech	(Superior)
8	(9)	Tennis	(Bug Byte)
9	(–)	Hypersports	(Imagine)
10	(5)	Comp Hits 10 Vol 2	(Beau Jolly)

Spectrum

1	(1)	Green Beret	(Imagine)
2	(5)	V	(Ocean)
3	(2)	Bomb Jack	(Elite)
4	(3)	Way Of The Tiger	(Gremlin)
5	(–)	Sport Of Kings	(Mastertronic)
6	(9)	Starstrike 2	(Realtime)
7	(7)	F A Cup Football	(Virgin)
8	(8)	Incred Shrink Fireman	(Mastrc)
9	(–)	Turbo Esprit	(Durell)
10	(10)	Devils Crown	(Mastertronic)

NEXT WEEK

The next issue of *Popular Computing Weekly* is the start of something big in addition to the usual features – hot news, exclusive reviews, programming tips – you'll find the first of a series of supplements

Every second week we'll be looking at a different aspect of microcomputing – some supplements will examine particular machines, others will look at music graphics and education

The series starts with a bonus for Commodore owners and will include

● Commodore word processing
New packages including *Papercilp and Cut 'n Paste*

● 80-column displays on the 128
How to get business-standard displays without investing in a £300 monitor.

● Alternate realities
A profile on US simulations specialist Microprose with a look at two of its new products, submarine action in *Silent Service* and aerial thrills from *Acrojet*

● Plus
A look ahead to next month's Commodore Show

Order your copy now

The Hackers

It used to be that we'd come up with the new ideas, and the Japanese would just copy us.
ULTRANEW CHIPS INC
But now they're producing original designs too!
SO! The devils are copying us AGAIN!!!

GAMES
REALTIME SOFTWARE
LIMITED



SPECTRUM / AMSTRAD £7.95

Mail order or Access telephone orders Tel: 0532 455948
Cheques, P.O.s payable to: Realtime Games Software Ltd., Prospect House, 32 Sovereign Street, Leeds LS1 4BJ


DRIVE AMERICANA
FOR MORE
MPG
MICROPOWER · PER · GAME
Americana Software, all American action at a superb value for money price of only
£2.99
COMING SOON
SLAMBALL
NEW YORK CITY
BREAKDANCE
SHAMUS
SCOOTER
COMMODORE 64/128 · ATARI
OLLIES FOLLIES
COMMODORE 64/128 · ATARI
LICENSED TO THRILL
AMERICANA
SOFTWARE
TEL: 021 359 8881